MASARYK UNIVERSITY

FACULTY OF SCIENCE

DEPARTMENT OF GEOGRAPHY

CRIP CITIES:

NONLINEAR TEMPORALITIES OF POST-SOCIALIST CITY

HABILITATION THESES

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To Táňa

This work was made possible by the temporal violence perpetrated on my family. It could only come into being because my wife single-handedly cared for our children during the summer holidays for two consecutive years.

... part of a feminist praxis, as scholars have noted over the years, is to de-individuate, you could say. It is about recognising those contributions that are only possible in our lives because of the care work and contributions of other people. Rather than seeing individuals, we see speakers or actors who are supported by a network of invisible or undervalued time and energy. (Atanasoski & Vora, 2021, p. 36)

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Time–space rhythms of the city—The industrial and postindustrial Brno

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Abstract
This paper examines the transformation of the postindustrial city in terms of its temporal structure. It takes concepts of time geography, routine, and rhythmicity of the classic Lund school, Lefebvre's analysis of rhythms, and Crang's geographic application of the chronotope concept as its starting points. Analyzing changes in the city bus transport services in Brno between 1989 and 2009, the paper attempts to capture in empirical terms the onset of the postindustrial phase of the city's development. While temporality of an industrial city can be characterized by a shared rhythm determined by a small number of dominant pacemakers (industrial plants), the deindustrialized city is associated with a significant weakening of such pacemakers cutting across the society and thus with a distinctive individualization of urban rhythmicity.

Keywords
Rhythm, pacemaker, postindustrial city, Brno, public transport

Introduction

This paper presupposes that in geographical research, the city as well as any urban place should be defined not only by its spatial attributes but also through its affiliation to a particular spatiotemporal system. To be more precise, the aim of the paper is to examine changes occurring in the city temporal structures between its two distinct developmental phases—industrial and postindustrial. Therefore, the directly connected concepts of time geography, namely cyclical time, rhythm and rhythmicity, pacemakers, and also the summarizing concept of chronotope are discussed in detail in the opening theoretical section of the paper. These concepts are then applied in the empirical part, which is based on the premise that the changing temporality related to the transition from the industrial to the postindustrial city is illustratively demonstrated by the way of public bus transport frequency–rhythms conversion easily detectable from its timetables. It is supposed there is a strong relationship between the societal demand for public transport service at certain times and places, and the adaptation of the bus transport system to these demands. Temporal changes in the availability of public transport services between 1989 and 2009

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are in this paper described on the example of the city of Brno, the results of the analysis document that the industrial Brno represents a chronotope differing in terms of space–time organization from the chronotope of the postindustrial Brno.

Urban rhythmicities

The geographical discourse conceptualizes city space as a fluid medium or context for a number of processes and phenomena, some of which lead to the creation or transformation of materialized or nonmaterialized urban structures. A large number of urban structures arise from repetitive activities, i.e. processes repeated within a specific time interval—it is actually repetition or rhythmization of processes that is often the key factor in the materialization process in the urban tissue, an imperative for a process to be imprinted into the physical or functional structure of the city. The idea of repetitive activities brings in the dimension of cyclical time, a perspective not very common in geographical research. Cyclical time is characterized by binding sequences of activities into integrated units that serve as periodically repeated building blocks of daily, monthly, or annual cycles of routines. The primary focus within the context of this paper is, therefore, on city rhythms as drawn e.g. by Lefebvre et al. (1996) or Crang (2005: 206):

> In other words, our daily lives have a temporality that is often not the linear flow of time's arrow but is composed of cycles. Getting up, going to work, eating meals, weekdays and weekends all occur with stupendous regularity when we look at Western societies. On longer scales there are the cycles of birthdays and festivals. In other words ritual times, be they religious, personal, commercial or mixture of all of these, are often cyclical.

Rhythms, specifically urban rhythms, are essentially linked to specific places as their constitutive polarities (presence and absence, movement, and pause) are predominantly linked to spatially localized entities, objects, and processes. The concept of rhythmicity as a process-oriented conceptual tool thus allows depicting the key feature of time in space—its internal polarity. Cyclical repetition of routine processes therefore links specific places or types of places into a single space–time. City, as well as any (urban) place can thus be defined not only by its spatial attributes but also through its affiliation to a particular spatiotemporal system. Yet, this topic has been somewhat neglected in geographic research of cities, especially in favor of analyses of functional characteristics of urban places. However, the mosaic of the functional characteristics of individual places that captures the complex spatial pattern of the city is not quite complete without the temporal dimension of the city. Knowing the time coordinates of functions of each specific place allows a more detailed geographic description and interpretation; it allows linking places and their functions not only within space but also within time. Analyzing the spatiality and temporality of particular places within the city, one can identify and highlight the dominant rhythms orchestrating the city and integrating the urban places into a coherent spatiotemporal system.

To be more precise, the use of a rhythm can be perceived as a conceptualization not completely denying but rather complementing the idea of linearly flowing time. Crang (2005: 206) talks about "stupendous regularity" of many activities in daily lives accenting the cyclical nature of lived time (Henriques et al., 2014). On the other hand, he also sees how the mechanical linear time of modern society interferes and intertwines with daily or seasonal repetitions. In Lefebvre's view, the unity or reciprocity of the cyclical and linear time constitutes the measure of time; linear and cyclical times measure themselves one against the other (Lefebvre, 2004: 8). In this sense, the empirical part of this paper treats public transport schedules as a representation of urban cyclical time; however, the changes in the

schedules between 1989 and 2009 also define the linear time flow, i.e. the one-way urban development and transition from the industrial to the postindustrial era.

Chronotope

As urban rhythms are still not a common dimension of urban research methodologies, there is a very limited range of operational concepts enabling space–time integration. One of the options to overcome this duality is the chronotope concept, first introduced within the field of the social sciences, namely the literary criticism, by Mikhail Bakhtin. He considers the existence of certain entities in mutuality, i.e. in relations with other entities: in his view, time and space, among many other examples, are not perceived as mutually exclusive, but rather as one element incorporating the latter. It is thus inevitably impossible to study place without time and time without place, as these entities are evidently inseparable (Bakhtin, 1980, 2002; for more detailed interpretation of Bakhtin's approach see Mulíček et al., 2015).

Although in geography, the chronotope was first applied by Folch-Serra (1990), its most developed theorization is connected to Mike Crang. Crang (2005: 214) introduces this concept as a unique combination of a specific temporality and a specific place—a place can be perceived as a spatially bounded constellation of rhythms, always beating, circulating, and becoming.

> A multiplicity of temporalities, some long run, some short term, some frequent, some rare, some collective, some personal, some large-scale, some hardly noticed—the urban place or site is composed and characterised through patterns of these multiple beats. (Crang, 2001: 189–190)

The concept of chronotope thus refers to places perceived as polyrhythmias (Lefebvre, 2004). Similarly Schwanen et al. (2012) view a particular urban place as a locus of entrainment processes shaping, modulating, and synchronizing rhythms coming from particular sources. The place-based entrainment emerges as an interplay between local settings and incoming rhythms. Internal rhythmicities of numerous urban entities including institutions, standards, and technologies can be relevant, considering their impact on urban temporality. The organization of public transport or the opening hours of retail premises and public institutions are just a few examples of systems transmitting their internal beats to other urban entities and places.

There are no scale limitations to chronotope applicability—a small square animated a few times a day by the arrival of a bus is just as typical representative of a ''quiet neighbourhood'' chronotope as an urban agglomeration flooded by crowds of factory workers on workday mornings is of an industrial city chronotope. Albeit there is a plurality of possible temporal and spatial scales, the chronotope conceptualization meets particularly with the time–spaces of everydayness. Everyday spatialization of urban rhythms (or timing of urban places) inscribes deeply into physical as well as institutional urban structures and the chronotopic approach seems to be helpful in exposing not only the ''graphic visibility'' of an urban place but also its ''narrative context'' (Holloway and Kneale, 2000; Simonsen, 2004). This approach has inspired us to consider the possibility of using data from public bus transport timetables valid in Brno in 1989 and 2009 as the base for a spectral analysis of the chronotopes of the industrial and the postindustrial city.

Pacemakers

The concept of chronotope is deeply related to the concept of pacemaker introduced by Parkes and Thrift. These authors describe pacemakers as temporal and spatial points serving

as sources of reality timing. In other words, pacemakers are collectively recognized, often institutionalized, and especially solid rhythms indicators. They consider family, with its shared rhythms of eating, sleeping, and other family rituals, a very strong pacemaker (Parkes and Thrift, 1975).

The concept of pacemaker was adopted by Hägerstrand (1982), however, he preferred the term pacesetter, as this word expresses better the ticking of a metronome as an appropriate symbol of timing source. Hägerstrand presented its particular application, using the example of a locality, where he spent his childhood, namely a valley in the wooded part of southern Sweden. The author portrays the role pacesetters play in the uniformly established times of the beginnings and the ends of important and often institutionalized bundles of activities. Entities like the foundry (the Bruk), the school, the railway, the church, and milking cows provide the local residents with specific spatiotemporal markers indicating when, where, and for how long they are supposed to be, thus significantly structuring their days, while also structuring the day of the entire local community by virtue of their generally recognized validity (Hägerstrand, 1982).

Shapcott and Steadman (1978) observe partially different pacemakers using the example of a medium-sized city of Reading in southern Britain. Besides the most frequently mentioned fixation of working hours, they mention school hours, office hours, and opening hours of shops, restaurants, pubs, cinemas, and sports facilities, noting also the importance of the TV program, public transport timetables, or legally restricted opening hours of certain services. In comparison with Hägerstrand's approach, there is a significant increase in the number of primarily consumer-oriented pacemakers. However, any increase in the number of key pacemakers necessarily causes a reduction in their relative importance, and moreover, their internal conversion can also be identified. The extended opening hours of shops, restaurants, casinos, sports facilities, cinemas, and petrol stations, where a wider and wider variety of services is offered 24 hours a day, had caused that their availability became independent of specific times. The boom in private transportation at the expense of public transport, online purchasing, fast-food, and variable work schedule represent just a few of the many other symptoms of the ongoing conflict between the traditional pacemakers widely shared by the society and the emerging individualization of everyday urban life. It means a growing share of urban population is able to shape individually their daily space–time routines without subordinating them to the commonly shared space–time regime.

It is exactly the ability of ''narrative contextualization'' (Holloway and Kneale, 2000; Simonsen, 2004), what makes the concepts of chronotope and pacemaker so helpful in documenting urban transitions, specifically the transition from the industrial to the postindustrial city in our case. The city can be conceptualized here as a large-scale chronotope, an urbanized place animated, and ''narrated'' by a set of pacemakers and their rhythms. The postindustrial transition itself will then be manifested by a decline of the existing traditional industrial pacemakers and the onset of new ones—producing new rhythms, defining a new all-city chronotope and a new everyday story of the city (Crespi, 2014).

Rhythms of the industrial and the postindustrial city

The transition from the industrial to the postindustrial stage, especially in case of traditional industrial cities, is associated not only with shifts in relative importance of the individual sectors of the local economy, but also, and above all, with the deep institutional and cultural impact of this process. Byrne (2002) argues that within the context of the industrial city, the application of the term ''industrial'' must not be limited to the sphere of production.

According to Byrne, "industrialism" is the way industrial cities operate and are organized; it is deeply rooted and to a different extent often persists even in the postindustrial stage of their development. Industrial production in cities played not only the role of a system of economic production, it also served as a system for social reproduction and for generating cultural forms. The way the industrial city was organized socially was significantly linked to the distribution of shared resources, often in a close connection to industrial production (Henriques et al., 2014). The industrial society, with the work culture at its center, clashes during the transformation period with the postindustrial city, which produces new privileged groups of citizens and new preferred themes, as well as new cultural forms (Cudny, 2014).

If the differences between the industrial and the postindustrial city are to be measured through the lens of cyclical time and rhythms, it is necessary to identify the organizational principles and important agents of the organization of everyday life for each of the two types of city development discussed in this paper. The existence of a relationship between the time regime of individuals or the whole society and the general political and economic structure is a general prerequisite for this discussion (Gershuny, 2000). In the case of the industrial city, the distinct city-forming factor was its industrial production. Some authors (e.g., Pavlínek and Smith, 1998) speak of industrial paternalism resulting from the strong links between the production and governance spheres and from the key position the major industrial plants had within the area of collective consumption resources distribution (housing, health care services, preschool services, transport). Industrial enterprises were thus the dominating elements in the spatiotemporal organization of the industrial city environment.

Some authors employ metaphors comparing the industrial space–time system to a kind of machine. They draw a picture of human/natural rhythms controlled by mechanical rhythmicalities (Stavrides, 2013) and depict the work schedules as engines of the town machine producing relatively simple rhythms balancing work and life, obligations, and entertainment (Paolucci, 2001). The industrial city chronotope dominated by rather uniform factory beats can be described then much more as eurhythmia (Laban, 2014) or isorhythmia (Lefebvre, 2004), the state of place-based rhythmical unification.

In contrast to this, no simple list of dominant rhythms can define the space–time of the emerging postindustrial city. The working hours of companies, diversified by their sectors of interest, size, and location, comprise a mosaic of overlapping activities filling most of the day without any apparent order. The value of time as a measure of work performance gets diminished in favor of other indicators. Consumer activities gradually erode the role of production as the main city-forming factor—the process manifests itself mainly by the fading differences between workdays and weekend days on the spatiotemporal level; retail services are a function that is less and less time bound, providing a bridge between the originally clearly separated working days and rest days (Kunc et al., 2012; Maryáš et al., 2014).

Although the rhythms of the postindustrial city are much less pronounced compared to the synchrony of the industrial city era, the connections between "...social reproduction, the structuring of time and construction of space are at least as strong as in industrial society" (Paolucci, 2001: 648). The fact is that the scale of the rhythmization of urban activities shifts—the unambiguous citywide spatiotemporal rhythms disintegrate into a large set of space–time routines characterizing individual groups of urban population that can be discerned in the system of dimensions corresponding to their varying professional, age, social, or consumer status (Boulin 2006: 197–198). The reduction in the significance of shared pacemakers of the mechanical age, which is often associated with the postindustrial period and which expands the range of available choices and the sense of personal freedom also increases the complexity of life situations, forcing individuals to keep

making decisions while holding them more responsible for their decisions at the same time. Stavrides (2013: 37, 41) speaks about rehumanizing the city-machine rhythms and comments on the changing spatiality of time in the postindustrial city:

> It is not that the rhythmicalities of the modern metropolis have ceased to exist. It is that such rhythmicalities are now increasingly organized and separated into distinct urban settings, and defined as characteristic of those settings, rather than existing as part of an intense, machine-centred production of overarching urban rhythms. Contemporary urban rhythms appear as enclave-bound rhythms... If the industrial modern city was the generator and locus of alienating mechanical rhythms, contemporary post-industrial cities seem to generate and sustain localized, site specific rhythms.

It seems that consumption in its wider definition becomes the new organizing principle in the postindustrial urban space–time replacing industrial activities that fade into insignificance. Kärrholm (2009) considers (maybe too strictly) consumption the last public activity introducing generally recognizable rhythms into the urban landscape. In conformity with Stavrides, he associates new consumption-based synchronicities of the postindustrial city with the processes of urban reterritorialization. Retail activities, according to Kärrholm, seize control over the traditional temporalities of particular public urban places, privatize their rhythms, and incorporate them into a territorial mosaic. Bromley et al. (2003) or Schwanen et al. (2012) give some empirical evidence on these processes of time-based territorialization when describing the emergence of nighttime economy localities and their multilayered rhythms.

Returning to the rhythmicity of the industrial city with its small number of key socially shared pacemakers and its significant contribution toward structuring the city, it is much easier to speak about a single common time, rhythm, routine, which—through its daily repetition—becomes an integral part of the city. In the case of the postindustrial city, there is a trend of significant individualization of one's time budgets, which, however, tend to strictly repeat, become routinized. In this case, then, a single time and rhythm of a place will not do, instead a higher number of times and rhythms and their internal diversity (chronotope) must be considered. The routinized activities of individuals in their various forms thus compose the postindustrial city through circulation, combination, and recombination in principally the same way as the shared rhythms induced by communally shared pacemakers compose the industrial city. Within the framework of the individual ideas of the abovementioned authors, a postindustrial place–city thus can be described as polyrhythmic (Lefebvre et al., 1996) or kakorhythmic (Laban, 2014) and its various rhythms can be viewed as its dialectical parts.

Case study context

This paper aims to document the transition from the industrial to the postindustrial city stage assuming that the industrial city, as a distinct chronotope, differs in terms of space–time organization from the postindustrial chronotope. The characteristic rhythmicity of everyday industrial life linked to a small group of dominant pacemakers and the gradual disruption of the clear rhythm of an industrial city caused by the economic and social change that has been in progress since the 1990s is illustrated on the specific example of Brno, a Czech city with approximately 400,000 citizens and a long industrial tradition.

In the particular case of Brno, the way to the modern industrial capitalist system was taken up in the second half of the 18th century when the textile industry boom triggered the long-lasting industrial town era. In the year 1869, nearly one-third of the 75,000 inhabitants

was employed in industry and Brno ranked among largest production centers in Austro-Hungarian Empire. The industrial character of the city was even deepened during the postwar period after 1945. The Brno industrial plants became a part of the centrally controlled economy system in socialist Czechoslovakia. At that time, the share of industrial workers in total population of Brno (30%) significantly exceeded national average. In accordance with Enyedi's remark on socialist effort to rationalize investments through their concentration (Enyedi, 1996), the industrial production in Brno was concentrated into large production complexes. Four largest machinery plants employed two-thirds of the blue-collar workers in the mid-1960s and still more than one-third of all employees in the city by the end of the 1980s (Kunc, 1999). Nearly one-fourth of the 100,000 industrial workers in Brno in the late 1980s commuted to their work from the settlements in wider functional region of the city.

For a significant number of people employed in the industry, the everyday pace of a working day was thus set by factory working hours starting at 6.00 a.m. and ending at 2.30 p.m. Such early beginnings of working hours persisted as a kind of relict for the entire socialist period—they echoed 19th-century extended industrial work shifts as well as specific institutional timing of the former Austro-Hungarian Empire. These times were also highly accepted by many industrial workers commuting from rural settlements as they were able to combine their industrial employment in the city with local small-scale agricultural activities. The outlined anchoring rhythm was then transferred to other systems connecting the places of residence, work, and consumption into a coherent spatiotemporal complex covering not only the city itself but also the commuting area. Public transport timetables, opening hours of kindergartens and nurseries, or surgery hours of medical facilities are examples of nonindustry functions synchronized to some extent with the standard working hours, which secondarily created specifically rhythmic space–time for subjects with no direct ties to industrial plants. The space–time of the industrial city thus involved powerful mechanisms of self-reproduction, i.e. spatial diffusion of its rhythms across the urban space.

The development trajectory of the city of Brno after 1989 was substantially affected by the collapse of the centrally controlled system and the introduction of free-market economy. Deindustrialization processes accompanied by the growth of the tertiary sector were the most visible symptoms of that political and economic transition. The city functioning and development became more autonomous. There was a decline of large-scale industry in Brno; the multiple rounds of postsocialist investments created new production patterns withdrawing industrial production from its traditional production places and times and diminishing its privileged influence on the city's everydayness. Tertiary sector got the major share of total employment as early as in 1991 with retail and later also research and development activities that had emerged as the main markers of the postindustrial transition.

Analysis of the changes in the overall supply of city bus service in Brno between 1989 and 2009

Changes associated with the period of the postindustrial urban economy are most often examined through the prism of economics. But descriptions of sector changes and characteristics of tertiarization and deindustrialization only seldom manage to account for the disappearance of industrialism from routine activities of everyday city life. If attention is, however, paid to changes in rhythms, the impacts of postindustrialism on the daily functioning of the city become more apparent. For this reason, this paper captures the

onset of the postindustrial phase of city development empirically through the analysis of changes in the supply of public transport bus services in Brno between 1989 and 2009. The empirical analysis will focus on everyday rhythms passing over the seasonal or annual rhythms in this particular case.

Commenting the modes of urban synchronization Kärrholm says: "As a case of synchronising one could, for example, study how the timetables of busses are adjusted to the schedules of schools, work hours or the opening times of stores at weekends" (Kärrholm, 2009: 423). It is clear that different places within the city are mutually integrated via a very high number of relational systems producing and representing a certain level of isorhythmia. Public transport is only one of these systems; however, it is one which very eloquently illustrates the significant space–time routines and their changes within two decades of urban development in the context of the presented research at a physical level.

The basic premise of this paper is therefore the existence of a relationship between the societal demands for public transport service at certain times and places and adaptation of the public transport system to these demands (Docherty et al., 2008; Marada and Květoň, 2010; Turton and Knowles, 1998). It is necessary to clarify this premise in more detail. We must emphasize that the demand for public transport service in specific destinations and at specific times is not the sole criterion considered in the development of timetables. There are other factors that affect the scheduling of individual routes and the time-spatial pattern of the entire public transport system. Leaving aside the aspects of the public budget, the factors include primarily the overall structure of the transport market and the market shares of different mobility modes. During the communist regime, the position of public transport became very strong because of the relatively low level of automobilization. There were just 175 passenger cars per 10 inhabitants in the Czech Republic in 1980 and not more than 233 in 1990 (Kraft, 2012: 57). The situation has changed significantly since 1989; however, the importance of public transport within the Brno transportation system is still high—62% of people who live or work in Brno use public transport for their journeys regularly (PPMF, 2012: 7). As the public transport system is the key agent of urban mobility both in the industrial and the postindustrial Brno, its relevance in terms of politics and planning has been always considerably high. Especially socialist planners perceived public transport as a vital component of the centrally planned economy—it had to provide for and guarantee the everyday flows of workforce between housing and job opportunities often unequally spatially distributed within the territories of cities and urban regions (Musil, 2002). The development of timetables and routes scheduling were fully adapted to these normative planning goals among which the accessibility of large industrial plants was of the highest priority. As for the bus transport, the socialist urban planners took advantage of its spatial flexibility (compared to tramways or trolleybuses) to link relatively fixed industrial premises with newly constructed housing estates. Brno Public Transport Company (DPMB, 1989: 38, 44) defined then the role of the bus transport within the city transport system as follows: "Buses are becoming an efficient transport system dedicated to provisioning transport services for big industrial factories and large residential areas; ...(This system) is especially important at the times when new large housing estates are being constructed as it can be adjusted operatively to the processes of progressive urbanization." The same publication documents the fact that on many bus routes at that time, the intervals between services were based on the agreement with served factories (DPMB, 1989: 38, 44).

Nowadays, the industrial factories are not as important destinations within the city environment, at least as a consequence of the deindustrialization of the Brno economy; also the political regime is clearly different than in 1989, but the effort to serve the city area effectively by the public transport is still persistent. The buses are still operated as a

flexible component of the public transport system spatially and temporarily adaptable to changing demand (CITYPLAN, 2012), less dependent on the transport infrastructure, and capable to reflect both the ongoing transformation of spatial relations in the city of Brno and the changing temporal life rhythms of its residents.

As mentioned above, the greater spatial and temporal flexibility of bus transport was the principal reason for its use as a base for the analysis of the everyday rhythm change between the industrial and the postindustrial Brno. Neither tramways nor trolleybuses were used for this purpose, despite the fact they comprise a substantial part of the city's public transport network. Both are, however, less flexible than bus transport, and therefore less valuable for the aim of this paper. It does not mean they are completely locked in a stable, unchanging state, nevertheless, the development of their networks such as the construction of new branch lines or reorganization of their timetables is inevitably a longer and more difficult process. In fact, many new tramlines connecting new housing estates were built in Brno during 1970s and 1980s, in the form of the light rail, although a majority of them were finished later, in some cases 5 or even 10 years after the completion of the particular housing estate itself (Prokeš, 1979). These newly emerging links between residential and industrial areas within Brno were, at least in the first years of their existence, serviced by the flexible bus transport, on which we, therefore, focus in our empirical analysis.

Assuming the existence of a relationship between the societal demand for public transport service at certain times and places, and the adaptation of the public transport system to this demand, the analysis of rhythmicity of public transport and especially its changes over the reviewed period can be used to assess the status and change of the city's daily rhythm. Obviously there is a kind of dialectic relationship between transit system patterns and the socioeconomic structuration of the city. The public transport system is a clear driver shaping everyday routine of individuals and at the same time it is being shaped by the demand based on the routines aggregated on the scale of the whole city. Having in mind its dual, scale-dependent position of the public transit, we accent here the ability of the bus transport system to adopt and represent the rhythmicity shifts stemming from changing socioeconomic context.

As a whole, the supply of public transport bus service in Brno has not changed very much since the late 1980s—the number of routes and connections operating on weekdays and Saturdays has remained more or less the same (for more details see Table 1). A quite substantial change occurred, however, in terms of distribution of bus connections in the course of the day—a hypothesis, based on the data shown in the chart in Figure 1, can be formulated about the transformation of temporal rhythms in Brno, which is easier to discern by considering weekdays and not so easy to discern by looking at weekends.

The distribution of bus connections available on working days in 2009 shows two main differences compared with the bus services available at the end of the 1980s (for more details, see Figure 1). Firstly, a greater uniformity in supply of bus services during the day is particularly noticeable in 2009, i.e. the difference between the number of bus connections operating during the morning and afternoon peak hours compared to the morning off-peak period is smaller (the peak values exceeded 200 bus connections per hour in 1989, while the traffic intensity decreased to 75 bus connections per hour in the off-peak period; analogous data for 2010 show approximately 175 bus connections at the peak hours versus 100 bus connections in the off-peak period). The other major difference is the shift of the morning and afternoon peak into later hours—in 1989, the morning peak hour culminated between 5 a.m. and 6 a.m. (so that workers employed in the industrial factories could get to work by 6 a.m.—from all Brno districts), while in 2009, there is a distinct peak at about 2 hours later, i.e. between 7 a.m. and 8 a.m. due to the transition of a large portion of the workforce into

Table 1. Brno public transport bus services in 1989 and 2009.

				Change (1989–2009)	
		Year 1989	Year 2009	abs.	% (1989 = 100%)
Working days	Number of operated routes	42	38	−4	90.5
	Number of operated connections	2462	2359	−103	95.8
Weekends	Number of operated routes	30	29	−1	96.7
	Number of operated connections	1403	1572	169	112.0

Source: Brno public transport bus service timetable valid from 1 September 1989 to 30 June 1990; Brno public transport bus service timetable valid on 30 September 2009.

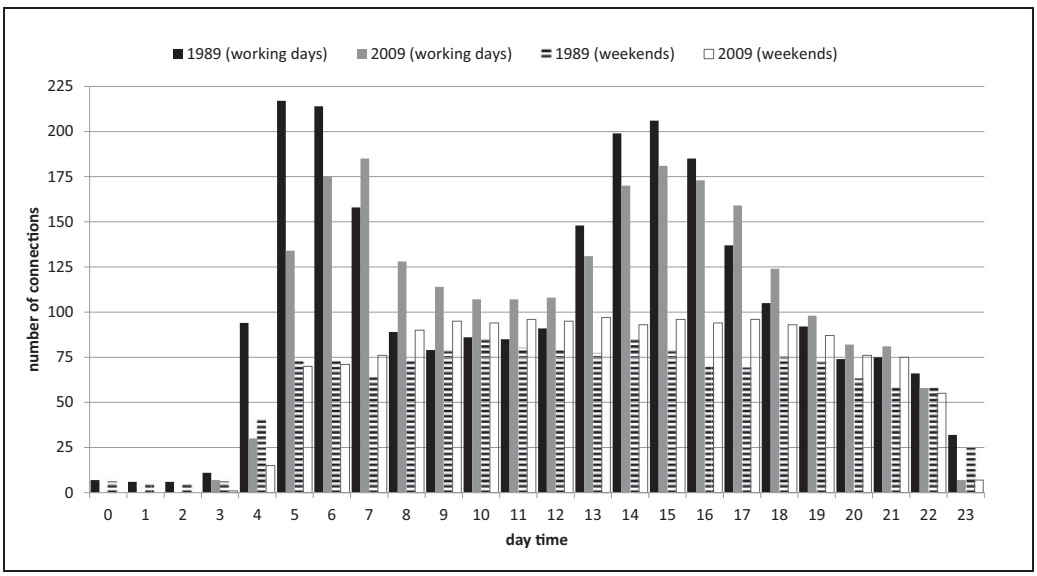

Figure 1. Changes of distribution of city bus connections in the course of the day in Brno between 1989 and 2009 (working days and weekends).

Source: Brno public transport bus service timetable valid from 1 September 1989 to 30 June 1990; Brno public transport bus service timetable valid on 30 September 2009.

the service sector whose working hours start later (the strong relationship between the industrial character of the city and the emergence of public transport peak hours between 5 a.m. – 6 a.m. was in Czech conditions confirmed e.g., by Řehák, 1979). A similar shift, although much less distinct, marks peak hours on working day afternoons. Also, the number of bus connections available in the evening hours of working days (i.e., between 6 p.m. and 10 p.m.) is apparently higher in 2009, which is probably also related to the active part of the day extending into later evening hours.

The distribution of bus connections over the course of the day on weekends has not changed since the end of the 1980s, as the rest days of the industrial city were without the clear pace of the working time start and end in large factories. However, although we can speak of a homogeneous temporal structure of bus connections during the rest days in both

Table 2. Typology of Brno public transport bus routes in 1989 and 2009.

Type	Characteristics of the individual types	Total number of:			
		Routes		Connections	
		1989	2009	1989	2009
Classic type	Moderate morning and afternoon peaks, differences in number of connections between peak and off-peak hours do not exceed 100%	11	8	780	546
Industrial type I	Well-pronounced morning and afternoon peaks, differences in number of connections between peak and off-peak hours exceed 100%	15	8	1251	634
Industrial type II	Extreme morning and afternoon peaks, no connections during off-peak hours	6	2	188	77
Homogeneous type	Without pronounced morning and afternoon peaks, differences in number of connections between peak and off-peak hours are negligible	8	12	231	615
Residual type	Routes with specific distribution of connections during the day	2	8	12	487
Total		42	38	2462	2359

Source: Brno public transport bus service timetable valid from 1 September 1989 to 30 June 1990; Brno public transport bus service timetable valid on 30 September 2009.

reviewed periods, small differences in their bus service offerings can be found—the most obvious is the clearly higher number of afternoon bus connections in 2009.

Based on the comparison of the city bus connections distribution over the course of the day in 1989 and 2009, a partial conclusion can be drawn about overall levelling of the previously distinct differences between the peak and off-peak periods.

Proportional changes in different types of city bus routes in Brno (weekdays, 1989 and 2009)

In addition to the analyses of the changes in the total number of bus routes and connections, and the changes in their distribution over individual parts of the day, an analysis of changes in the shares of different types of lines is required for the sake of the study of changes in spatiotemporal rhythms in Brno. In this paper, the term ''route type'' is understood as the way the bus connections on a given route are distributed during the course of the day. The following types of routes are distinguished: classic; industrial type I; industrial type II; homogenous; and residual. The basic characteristics of the individual types, supplemented with basic information on their shares in 1989 and 2009 are provided in Table 2 and Figure 2. The types of bus routes in Brno were defined for working days only, since intense spatiotemporal rhythmization was confirmed only on working days by the previous analysis (see Figure 1).

The difference in the distribution of bus connections in the course of the day between classic type and industrial type I is not very large according to Figure 3. Lines belonging to industrial type I offer just one more connection than classic type lines in average during peak

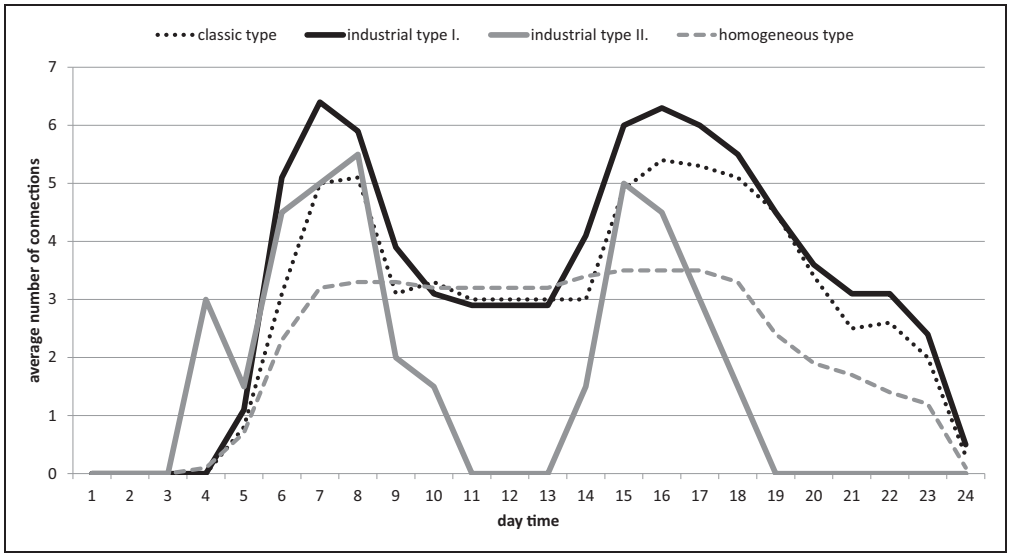

Figure 2. Distribution of city bus connections in the course of the day in Brno in 2009 (average number of connections per type of the route). *Note*: Figure does not include the residual type as the indicator of average number of connections cannot be applied on this type.

Source: Brno public transport bus service timetable valid from 1 September 1989 to 30 June 1990; Brno public transport bus service timetable valid on 30 September 2009.

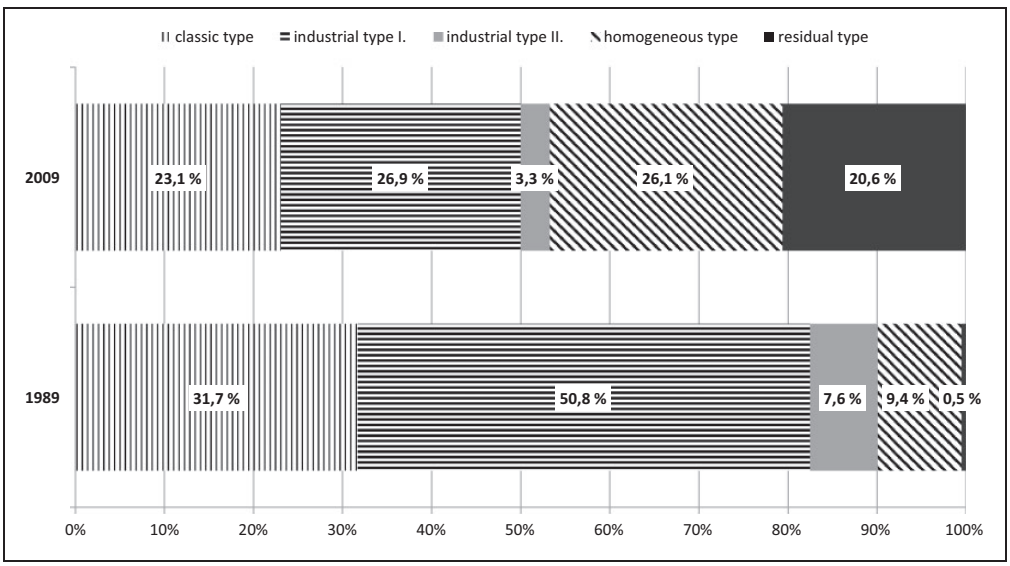

Figure 3. Share of route types on total number of connections in Brno (1989 and 2009).

Source: Brno public transport bus service timetable valid from 1 September 1989 to 30 June 1990; Brno public transport bus service timetable valid on 30 September 2009.

hours. However, we assume that the more than doubled number of connections during peak hours in comparison with off-peak hours signifies a big relative increase, which is the reason for recognizing them as two distinct types. Differentiating between these two types can be seen as arguable, but it still provides very evident and illustrative results.

The merit of a detailed analysis of changes in the shares of different types of bus routes between 1989 and 2009 lies—in our opinion—in the fact that this analysis allows a more nuanced view of the intensity of changes in the spatiotemporal rhythms in Brno.

The fundamental change, which occurred in Brno within the last 20 years, is represented by a relatively sharp decline in the shares of industrial types of bus routes, i.e. routes characterized by a strong expression of traffic peaks during periods corresponding to the beginning and the end of working hours in Brno's large factories. While there was a total of 1439 bus connections within the industrial route types I and II operating during working days in 1989, i.e. almost three-fifths of the total number of connections, the same types of routes included only 711 bus connections in 2009, i.e. less than a third of the total number. The extent of the shift in favor of route types without strong ties to the morning and afternoon peak hours is also underscored by the decline in proportional representation of classic routes, specifically from about one-third of bus connections in total in 1989 to less than one-fourth of the total in 2009. Although there is a general decrease in the number of connections between these two periods, it does not offer a relevant explanation of the decreasing share of classic and industrial I and II types of routes.

The decline in numbers of bus connections on routes with pronounced morning and afternoon rush hours in Brno has been counterbalanced by the significant increase both in absolute numbers and in shares of homogeneous (the type with a constant number of bus connections during the day) and residual routes (the type with bus connections showing a different temporal rhythm, which however is not typical for an industrially defined city—e.g., routes with a large number of bus connections in a specific part of the day). These types of routes comprised only 243 bus connections in 1989 (i.e., approximately one-tenth of the total), while they offered as many as 1102 bus connections in 2009 (i.e., almost one half of all bus connections operating in Brno during working days).

Yet another shift interesting from the geographical perspective occurred between 1989 and 2009. The shift concerns functions and locations of routes within the industrial type II, i.e. routes with the strongest ties to the beginning and end of working time in large industrial enterprises—bus connections on this type of routes were operated exclusively during the morning and afternoon peak hours.

This type of routes served two primary purposes in Brno in 1989. Firstly, it was direct rapid morning transport of workers from housing developments/key residential areas right to work and their swift transport back home in the afternoon. Secondly, the routes were connecting housing developments/key residential areas with important transfer hubs in Brno during the morning and afternoon peak hours, i.e. during periods when increased demand for transport could be expected in connection with a high number of people going to work and back home.

Between the late 1980s and 2009, there was a significant reduction in bus routes of industrial type II, as only two routes of this type with 77 bus connections were still in operation on working days in 2009. Their importance was minimized also from the geographical point of view, as they were redirected to suburban areas.

The above-described changes in the shares of the individual bus route types between 1989 and 2009 can be interpreted as a decline in the industrial significance of Brno, since the growing ratio of bus connections in classic and residual types of routes in 2009 seems to reflect a broader spectrum of spatiotemporal routines of the city's current inhabitants

structured by a wide range of pacesetters in the service and consumer sectors. It is also true that the service sector does not have such a powerful concentration effect on the functioning of the city (in the spatial and temporal sense) as industry does—for at least several reasons. In this respect, the greater dispersion of the service sector within the city area, the sector's lower dependence on extensive use of large quantities of manpower, and especially the more diverse working hours and times may play a role. All this leads to a more balanced demand for urban mobility over the course of the day, and in the light of the presented analysis, this fact is reflected by the increase of importance of homogeneous and residual types of bus routes.

Conclusion

This paper was inspired principally by the time-geography tradition, which provided the source for its assumptions, methods and, particularly, concepts. The paper tries to consider deeply and carefully the interdependent relations between time and space. Time is being inscribed into space, it shapes space, moreover, it is even being materialized in space in overlapping layers or strata of a kind (Simonsen, 2004: 50). Lefebvre discusses in this context that time forms sedimentary layers or, more precisely, palimpsest in space (Lefebvre, 1991: 229), Gregory similarly introduces the term history of present. Although these terms are different, their purpose is more or less similar—to identify processes from the past constituting the present (Gregory, 1994: 369). History is always embedded in space, it is always marking it in an inseparable way, thereby elements of industrialism can be observed in the postindustrial city. Stemming from the assumption discussed above, we studied here in detail the example of a particular space (the city of Brno) through its development in time. The main aim of the paper was, therefore, the comparison of different times within one specific space (Crang, 2011: 334–335) and not, at least in this case, the comparison of various time cultures of individual nations or distinct time regimes in different spaces (Larsen, 2004).

The presented empirical analyses illustrate the chosen segment of the postindustrial urban transformation. It should be acknowledged that the transformation process is not yet complete. The declining industrialism (from the broader, not just economic point of view) is being gradually overwritten by new spatiotemporal patterns, some of which have already been attributed to the postindustrial mode of the city functioning. As the presented analyses partially show, the current reality is in the state of transition—the chronotope ''industrial city,'' which acted as a universally valid concept of rhythmization of activities in the socialist Brno is no longer dominant. But it has not been replaced by a similarly universally valid and dominating configuration of spatiotemporal points/places yet.

While the industrial city may be viewed as a single spatiotemporal system from this point of view by virtue of the shared dominant rhythm, the loss of this rhythmic integrity in case of the postindustrial city necessarily leads to its disintegration into a number of places or clusters of places created and at the same time interconnected by specific rhythms. It is thus more feasible to conceptualize the postindustrial city as a set of spatiotemporal systems, where the specific rhythmicity does not dominate on the city level, but on the level of subsystems that connect specific groups of residents and users of the city with certain places. The resulting ''post-industrial city'' chronotope is thus more rhythmically diverse than the rather isorhythmic industrial city. From another point of view, the industrial Brno can be conceptualized as a chronotope dominated by collective rhythms, while in the case of the postindustrial phase of urban development, the chronotope is strongly individualized.

The individual components of the complex spatiotemporal system of a postindustrial city coexist side by side and mutually overlap. If we employ concepts of *palimpsest* (Lefebvre, 1991) or *history of present* (Gregory, 1994) as a starting point, we can consider developmental phases of society as layers permanently overwriting one another. The newly emerged postindustrial spatiotemporal configuration of the city is laid over the routines and rhythms of industrialism (without replacing them). Thus, we often witness functional or cultural conflicts arising from the existence of multiple time spaces in the contemporary city. The following appeal was published in Šalina, the monthly magazine of Brno Public Transport Company:

> Please, do something about the connections on tram route no. 12 in the direction from Zvonařka. We are not satisfied with the timetable which was probably designed by someone who does not use the route. **Normal people need to get to work at 6 a.m**., but then it is impossible to get around Brno without problems, in my case to get to Purkyně stop in Královo Pole. (Plus-minus, 2009a: 5)

The quoted request probably represents a person with spatiotemporal rhythms different from the daily routine of the author of the following text published in the same magazine:

> Could you please tell me why the bus connection on route no. 75 departing at 7.16 a.m. from Bílovice nad Svitavou and extended to Slatina railway station was cancelled during summer holidays? If I am not mistaken, the previous bus from Bílovice extended to Slatina departs at 6.16 a.m., i.e. an hour earlier! There are more and more office workers employed at Černovické terasy **whose working hours actually do not start at the traditional 6 or 7 a.m. but rather at 8 a.m. or even later**.'' (Plus-minus, 2009b: 6)

The coexistence of often very disparate spatiotemporal coordinates of routine urban activities could be in a very simplifying manner expressed as an overlapping of the relict time spaces of the industrial city and the new time spaces of the postindustrial city. As partly proven by the empirical study, the key reason for the changes in the spatiotemporal rhythms is the spatial, and particularly functional, dispersion of the pacemakers. An increasing share of the services sector in total employment, the strengthened role of the consumption function as a city-forming factor at the expense of the productive function, as well as fundamental changes in the understanding of and experiencing the urban way of living are contextual factors that affect the daily (as well as weekly or annual—however not concerned in the analysis) routinized spatiotemporal strategies of urban populations. Individual types of pacemakers are not equally significant for different groups of urban population. In comparison with the industrial city, the number of collectively shared pacemakers, whether of local (employment, consumption) or external character (e.g., TV) has dropped significantly. The increase in the number of individually defined pacemakers shattered the uniform rhythm of the city into a mosaic of rhythms visible through the routine city activities only at the scale of an individual or a narrowly defined group. This fact certainly brings up a number of secondary topics connected in this or that way with the spatiotemporal dimensions of urban life (land use and transport planning, access to public services and infrastructure, etc.). Their content, valid in the industrial city setting, is however dramatically altered in the conditions of the postindustrial city.

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Regional heteroglossia: the metropolitan region as a dialogical landscape

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ABSTRACT

Many metropolitan conceptualizations apply 'territorial grammar' when articulating the region. This paper approaches the metropolitan region as an entity whose extent and internal structure are negotiated in both space and time. We argue that the 'planning imagination', which is predominantly spatial in nature, must be temporalized by considering 'temporal grammar'. The main objective of this study is to explore how a temporal dimension can be integrated more effectively into how the metropolitan region is imagined and conceptualized. Therefore, we employ the dialogical concept of heteroglossia to present the metropolitan region as a continuous dialogue between municipalities of different power, as an open, ongoing and negotiated spatiotemporal unit. Our secondary aim is to employ this conceptualization in an empirical description of the spatiotemporal arrangement of a particular region (Brno, Czech Republic, summer 2015). For this purpose, we use data related to the opening hours of shops selling fast-moving consumer goods. Analysis revealed four specific voices present in the complex heteroglossia of the region: the voice of the core, the city of Brno; the voice of secondary urban centres; the voice of municipalities located in the hinterlands of secondary urban centres; and the voice of traditional agricultural municipalities.

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Metropolitan region; heteroglossia; retail; opening hours; Brno

Introduction

Metropolitan regions can be perceived as distinct spatiotemporal entities deeply rooted in the context of the spatial-planning imagination. From an ontological perspective, regions are not actually existing objects; they are more or less conceptualizations that simplify the complex metropolitan reality (Healey, 2009). Many of these conceptualizations apply 'territorial grammar' when articulating the region, that is, they depict the metropolitan region as an integrated, internally cohesive territory, as a supralocal community that can be easily bound within administrative and political borders (Macleod & Jones, 2007). These understandings correspond with Parr's definition of the metropolitan region as an entity made up of ' … two distinct but interrelated elements: the city, possessing some specified set of functions or economic activities; and a surrounding territory, which is exclusive to the city in question' (Parr, 2005, p. 556).

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The territorial approach is often complemented by planning imaginations that highlight the role of relations, flows and connections. In this 'relational' view, an abstract image of the metropolitan region emerges out of the multilayered intersections between diverse phenomena (Amin, 2004; Healey, 2009), including job commuting (Cörvers, Hensen, & Bongaerts, 2009; Karlsson & Olsson, 2006), migration flows (Halás, Klapka, & Tonev, 2016), and telecommunication contacts (Graham & Marvin, 2001). These relations weave particular places together to form an organized, semi-coherent entity. Thus, in the relational approach to defining regions, regions are delimited more topologically with rather fuzzy boundaries and specific spatiotemporal dynamics (Lagendijk, 2007; Macleod & Jones, 2007).

Regardless of whether a territorial or relational reading is applied, each metropolitan region indicates an internal structure that reflects the heterogeneous centralities of the places and nodes involved. Centrality can be understood as geographic and cognitive prominence (Porta & Latora, 2007) that mirrors and, at the same time, constitutes and contextualizes the landscape of power relations. The centrality of prominent places – which in monocentric metropolitan regions comprise a single major urban core and in polycentric regions, a more balanced urban network (Green, 2007; Malý, 2016; Meijers, 2005) – derives from their complex interactions with other places distributed in their hinterlands. Places within the metropolitan region must negotiate among themselves a variety of economic, administrative, jurisdictional, political and planning power relations. The resulting relations are often asymmetric, stressing the authoritative and allocative power of the metropolitan urban core(s) or the subversive and 'surreptitious' power tactics of non-central places and settlements.

As geographers we are primarily interested in the spatial outcomes of uneven metropolitan power relations. In the geographical imagination the metropolitan region is delimited, folded and structured in line with processes and structures fixed in space. The purely spatial understanding of the region offers a relatively static depiction of heterogeneous centralities, a semi-stable *status quo* captured in the form of maps and schemes. This approach, however, provides limited room for exploring the temporal aspects of metropolitan negotiations and interactions. The metropolitan region functions not only as a spatial entity but also as a temporal one (Thrift, 1977). Power relations are not only spatial in nature – they are inscribed in the rhythms that link centres with non-centres, the core with the hinterland. Historical examples include the rhythms of regular markets in medieval towns that contributed to the temporal aspects of the space of urban-rural trade and the rhythms of Church feast days that shaped the temporal environment of medieval parishes; Urry (2007) describes the gradual introduction of unified railway time in small towns that temporally bound them to large urban centres. Metropolitan regions can thus be abstractly viewed not only as visualized power landscapes but also as narrated and communicated power timescapes (Osman & Mulíček, 2017).

In this paper we approach the metropolitan region as an entity whose extent and internal structure are negotiated in both space and time and argue that the predominantly spatial reading of heterogenous metropolitan regions must be temporalized by applying 'temporal grammar'. We introduce the concept of dialogical space to grasp interactions within the metropolitan region as acts of negotiation between places (reduced to municipalities in the context of this paper) that differ in terms of location, size and centrality. Applying a dialogical reading enables us first to narrate the stories of particular places

that evolve throughout the course of the day and year and, second, to pursue a broader analytical perspective that is not reduced to the core–hinterland dichotomy. As for the latter point, the dialogical approach prefers the idea of blending different individual time-spaces across the metropolitan region instead of accepting the totalizing organizational power of a single metropolitan centre.

This dialogical conceptualization has many implications for planning that concern not only the spatial structure of the metropolitan region but also its temporal organization as well as its regionalization based on spatiotemporal specificities. The rhythms of temporary populations, the distribution of traffic congestion in space and time, and the spatiotemporal accessibility of services of general interest (SGI) are examples of planning issues par excellence that turn planning attention away from spatial imaginations and more towards complex policies integrating both spatial and temporal dimensions of territorial functionality.

The main objective of this study is to explore the way in which the temporal dimension can be integrated more effectively into how metropolitan regions are imagined and conceptualized. In addition we also aim to demonstrate how this conceptual approach can be employed to empirically describe the spatiotemporal arrangement of a particular region, in this specific case, the metropolitan region of the city of Brno (Czech Republic) in the summer of 2015. The temporal dimension of this metropolitan region is operationalized by analysing data on the opening hours of stores selling fast-moving consumer goods, as the authors of many other studies have done (Fernandes & Chamusca, 2014; Kärrholm, 2009, 2012; Kärrholm, Barata Salgueira, Soumagne, Fernandes, & Chamusca, 2017; Mulíček & Osman, 2018; Mulíček, Osman, & Seidenglanz, 2015).

Dialogical geography as a perspective for the temporalization of the metropolitan region

Many concepts have been used to temporalize space, including rhythmicity, polyrhythmicity, heterorhythmicity, multitemporality and heterotemporality (Crang, 2001; Degen, 2010; Hutchings, 2008; Klinke, 2013; Lefebvre, Elden, & Moore, 2004; Lefebvre, Kofman, & Lebas, 1996). However, these approaches focus primarily on capturing a space's rhythmicity at a certain moment and not how it develops over time. They are appropriate tools for describing a space at one point in time but not for providing space–time descriptions. Therefore, to describe the passing of time we should employ a concept that enables us to describe the relations between a space's individual rhythms and to temporalize the space by following the transformation of these relations over time. In other words, we should not seek out a monological concept that involves stable relations between different times, rhythms and temporalities but a dialogical concept that allows for the conception of a large number of diverse, often very subtle rhythms, between which continual negotiation (and thus transformation) of their interactions takes place. Therefore, we employ the dialogical concept of heteroglossia in order to present the metropolitan region as an ongoing dialogue between municipalities of different power, as an open, ongoing and negotiated spatiotemporal unit.

While the concepts of heterotemporality and polyrhythmicity do not work with changes of power in individual rhythms and do not allow the analysis of the evolution of power relations, the concept of heteroglossia assumes changes in the power of

individual voices and thus allows the analysis of mutual relations between these voices over time. Polyrhythmicity and heterotemporality may perfectly describe states of rhythm or polyrythmia, but they cannot capture changes in rhythm or polyrythmia over time. Heteroglossia, however, encompasses a temporal aspect through the constantly ongoing dialogic struggle of individual voices about their position within the whole (Ciută, 2016, p. 31; Folch-Serra, 1990, p. 268; Kuus, 2013, p. 33; Ó Tuathail, 2010, p. 263). From a dialogical perspective, the temporality of the metropolitan region is not dominated by one rhythm, and the heterotemporality of the metropolitan region is not stable over time, but it arises out of continuous negotiation between various rhythms (voices) in time. The metropolitan region is not considered to be a given or finished fact but a process of continuous becoming.

Dialogical space, as we understand it for the purposes of this article, represents a kind of *social space* (Gottdiener, 1994; Gregory, 1994; Massey, 2005; Soja, 1996) consisting of a dialogue or conversations between people. It is therefore a space of interaction that is made possible, structured, and limited by the form of this dialogue.

Authors working with the concept of dialogical space draw heavily from the work of Mikhail Bakhtin, or more specifically from the ideas of the Bakhtin Circle. For scholars the dialogical approach is a way of perceiving reality, an epistemological framework that considers the separation of inside and outside, oneself from others, subjectivity from objectivity, centre from periphery, a social construct. The boundaries between these categories are seen as artificially created (Folch-Serra, 1990, p. 261), and thus, in this approach these categories blend into each other as a particular procedural 'co-being' is created via mutual dialogue (Bakhtin, 1984). From a geographic perspective the dialogue represents a specific type of space, that is, a procedural space, a space of ongoing negotiation and ongoing recreation. Thus, the arrangement of space is never completed. A space does not exist in an ideal, final state; everything is constantly moving, changing, evolving in the sense of 'becoming' (Lawson, 2011; Painter, 2006).

Another key characteristic of the dialogical approach is its refusal of monological negotiation. Instead of a monologue performed by a dominant 'speaker', dialogical space emerges out of a dialogical negotiation between several distinct voices. In this context, Bakhtin talks about a many-languagedness (Holloway & Kneale, 2000, p. 71, 77) or, more often, about heteroglossia, that is, a combination, overlapping, or duplication of multiple voices. Heteroglossia is defined as an ensemble of multiple, conflicting voices of differing strength that are not spoken from equivalent power positions (Holloway & Kneale, 2000, p. 82; O'Reilly, 2007, p. 621). It is through this channel that power finds its way into the dialogical space. Dialogical space is thus not the same everywhere; it is not a homogeneous, monological environment. On the contrary, it is a space in which numerous voices speaking from a variety of different power positions exist. Interaction, that is, the dialogue itself, is thus not a two-way, symmetric exchange. It is heavily influenced by 'the play of power and hierarchy' (Bakhtin, 1986, p. 72; Morris, 1994, p. 9). The dialogical space implies the existence of territorial differences, that is, variations in the geographical distribution of particular properties or parameters that cannot be perceived as deviations from the standard or as a failure of spatial processes; these differences are the immanent characteristic of the dialogical space (Painter, 2006).

The concept of dialogical space has also been applied in geographical studies (Collins, 1999; Crang, 2001, 2005, 2011; Folch-Serra, 1990; Holloway & Kneale, 2000), most

frequently in the notion of the dialogical landscape, which is based on the assumption (a) that heteroglossia, a particular multi-voice, is bound to a specific landscape and (b) that this landscape can then be understood as a specific power field defined through this multiplicity of voices – heteroglossia (Folch-Serra, 1990, p. 256). Moreover, many geographers have applied the dialogical principle to more narrowly depict the interactions between two seemingly distinct spaces. Studies have also been conducted that use Bakhtin's dialogism to describe the relationships between the spaces of public and private spheres (Roberts, 2001), real and 'reel' spaces (Dixon & Grimes, 2004), and spaces of the living and the dead (Symonds, 2009). Our research interests are similar to those of geographers who have applied Bakhtin's dialogical thinking in such studies. Our focus is thus what Folch-Serra (1990) calls dialogical geography.

The operationalization of dialogical heteroglossia for studying the metropolitan region

We view the whole metropolitan region not as the passive (and static) result of the core's function (monological perception) but as a mutual (and temporal) dialogue between all participating municipalities (dialogical perception). In other words, our objective is to temporalize the conceptualizations of a metropolitan region by applying the dialogical approach. Thus, we understand the metropolitan region as heteroglossia, a spatiotemporal landscape emerging from the dialogue between conflicting municipalities.

The conversation we, the authors of this study, are interested in is not held between human actors but between municipalities. Thus, our focus is confined to the dialogical space of municipalities, in which daily commuter flows are the individual statements that constitute this space. Following this logic, dialogical space is performed through the daily flows of people from one municipality to another. Thus, we rely on theories that have been elaborated in works on performative space (Beyes & Steyaert, 2011; Clough & Halley, 2007; Gregg & Seigworth, 2010). For the purposes of our study, performativity can be attached to at least to three different levels. The first of these represents the actual movement of people from one place to another; the second reflects the spacing of a collective activity, that is, the localization of places interconnected by daily commuting flows; and the third involves the timing of these movements, that is, the times when these movements occur and their duration (Blumen, 2007; Blumen & Halevi, 2009; Halevi & Blumen, 2011). We can articulate the performative nature of the dialogue between municipalities by drawing from the definition of 'dialogicality' presented by Collins (1999):

> Utterances are concrete speech acts spoken by living subjects from particular social and historical locations. They are formed in the processes of interaction between the social groups to which these subjects belong, and are always addressed to the utterances of others. They are part of a generative flow of speech communication which is defined, above all, by its 'dialogicality'. (Collins, 1999, p. 74)

If we replace the 'living subjects' in Collins's quotation with 'municipalities', 'utterances' with 'commuting flows', 'particular social and historical location' with 'specific geographical position in the area' and 'generative flow of speech communication' with the 'process of the performance of the region', then his words would read as follows:

> Commuting flows are concrete speech acts spoken by municipalities from particular geographical locations. They are formed in the processes of interaction between municipalities in a region to which they spatially belong, and are always addressed to the commuting flows of others. They are part of a generative flow of the performance of the region which is defined, above all, by its 'dialogicality'.

If we understand the generic term *region* to denote a more specific territorial arrangement, such as a 'metropolitan region', we can apply the dialogical approach to describe it as well. According to a dialogical reading, metropolitan regions are not stable; they are constantly evolving in time. They are constituted by neither the core nor the periphery, but rather by their daily interactions; by neither a single municipality nor the whole of municipalities, but rather by their daily statements represented by commuting flows between the core and hinterland municipalities. Metropolitan regions are constituted by their own internal flows, the movements within them (Gilroy, 1993, pp. 15–18; Holloway & Kneale, 2000, pp. 83–84). Analogously, we can think of the daily journeys of commuters as mobile statements and of commuting flows as forming an asymmetrical conversation between municipalities within the metropolitan region.

We understand individual municipalities as entities that make statements in the form of daily commuting flows of people going in and out of these municipalities. These statements, that is, these flows of people and their presence or absence in a given municipality, produce and shape each municipality's voice, which is operationalized here through the opening hours of retail stores in each municipality. This shift from individual statements (operationalized by commuting flows) to a voice (operationalized by retail opening hours) makes it possible to represent each municipality with only one single voice, that is, a single measurable indicator. While the aggregated balance of individual commuting flows can be a descriptor of the presence or absence of people in each municipality, it says little about the effects of this presence or absence on the municipality itself. In this respect, opening hours of retail shops appear to be a more adequate, more localized indicator of a municipality's voice, as they communicate rather limited but quantifiable information about the ways in which a municipality reflects (or 'speaks about') temporary population fluctuations (Table 1).

Methodology

We have conducted a case study in applying the dialogical approach to describe a metropolitan region, specifically, the Brno metropolitan region, which is a clearly monocentric region integrated by strong functional relationships. The selection of this metropolitan region was inspired by our efforts to demonstrate that a metropolitan region can be understood as the product of ongoing negotiations between various voices (in this case, municipalities). To put it simply, we aim to demonstrate that even in the extremely monocentric

Table 1. Operationalization of the metropolitan region as a dialogical space.

Concept	Operator
Heteroglossia	Metropolitan region
Spokesman	Municipality
Voice	Retail opening hours
Statement	Commuting flows

metropolitan region of Brno features of heteroglossia can be clearly identified (cf. Yin, 1994). The metropolitan region of Brno includes the core city of Brno and 70 municipalities in its hinterland (all in the Czech Republic). The urban morphology of this area is determined by the presence of Brno, its dominant core; of the approximately 510,000 total inhabitants of the metropolitan region, 377,026 of them, or three quarters, live in the city of Brno. The urban structure of the hinterland consists of municipalities of various sizes and functions. Thus, the Brno metropolitan region includes small municipalities with predominantly residential functions, larger rural municipalities and small industrial towns where there are job opportunities (Figure 1).

To conduct our case study, we had to assign a single voice to each municipality in the Brno metropolitan region that summarizes the aggregate of its diverse relationships with other municipalities and articulates each municipality's position within the region. The opening hours of retail shops selling fast-moving consumer goods (grocery shops, greengrocer shops, newspaper and tobacco shops, butcher shops, etc.; collectively, FMCG

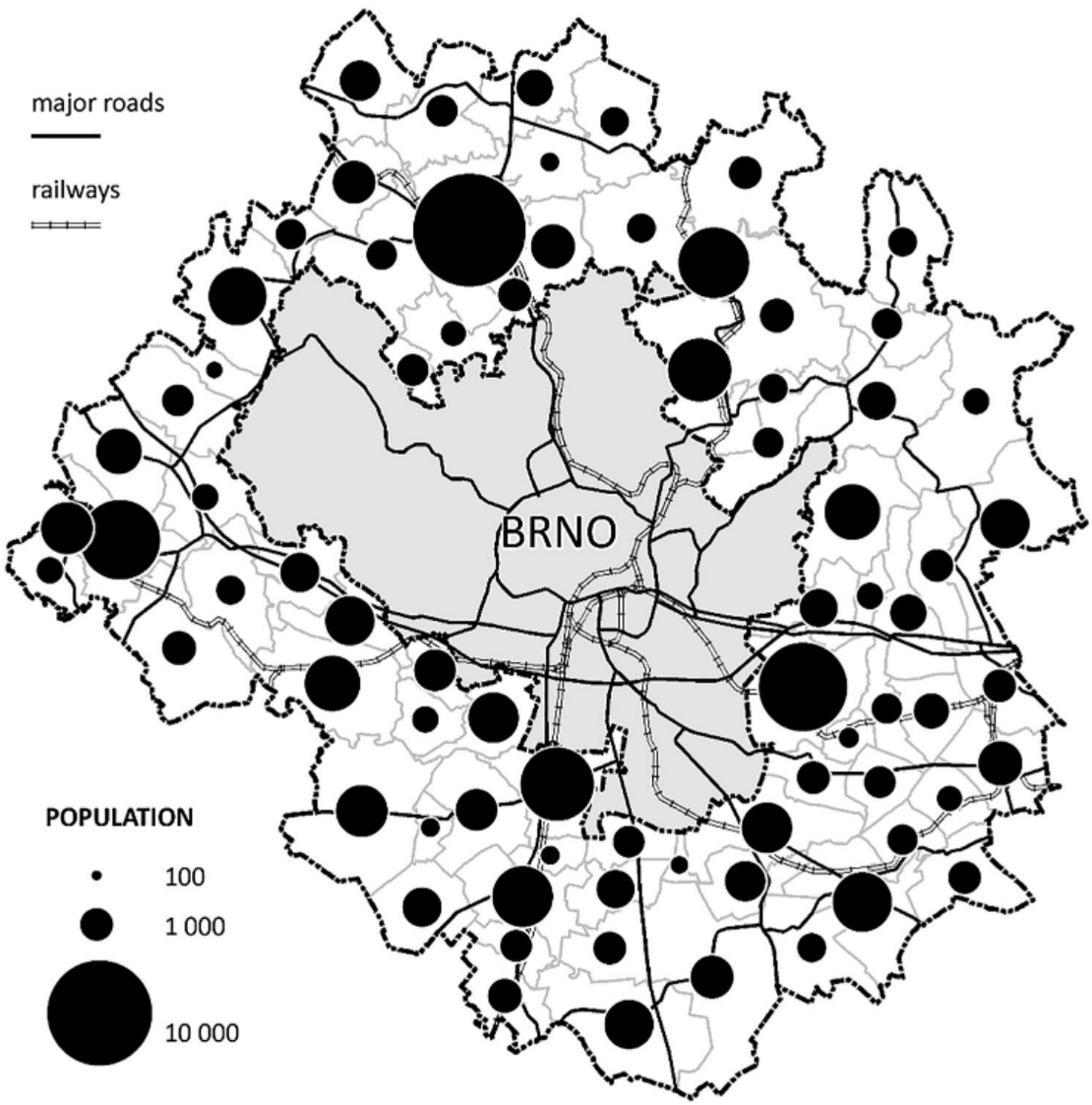

Figure 1. Population size of the municipalities in the hinterland part of the studied metropolitan region.

shops) were chosen to express the voice of the municipality; a dataset of retail opening hours was thus created and employed as the main empirical basis for depicting the dialogical process in the metropolitan region. These data were collected via a field survey that was conducted between June and October 2015. The survey covered 1,043 FMCG shops, out of which 886 were in Brno (85%) and 157 in its hinterland (15%). We collected data using two methods: by copying official opening hours that were displayed in shops and by holding informal conversations with salespeople, the aim of which was to acquire additional knowledge about the displayed opening hours. The first method was used primarily for recording data about shops' opening hours (opening and closing times; the length of lunch breaks; and variability of opening hours during the working week, the calendar week, month and year). The informal conversations helped us validate and complement official information. They did not usually exceed five minutes in length and focused mainly on the suitability of declared opening hours; peak hours (i.e. periods of increased number of shoppers) and changes throughout the day, week, or year; and issues related to the overall relationship between opening hours and the daily temporal regime of the municipality.

In the analytical part of our work we compared individual retail units as well as individual municipalities based on aggregate data from the entire region. We focused on finding similarities and differences between both individual retail units and entire municipalities. The heterogeneity of opening-hours data from individual shops led to no geographically relevant findings, and, therefore, we did not further analyse these data. Aggregate municipality-level data were contextualized within the framework of certain indicators (air distance from the municipality to the core, shortest road distance to the core, fastest public transport connection to the core, frequency of public transport connections to the core, intensity of commuting to work and school, population size, hierarchical position within the metropolitan region, distance to the nearest secondary core, number of the retail shops in the municipality). We employed these preliminary analyses to identify three basic interpretative axes that could be used to describe of the metropolitan region's spatiotemporal structure. The first interpretative axis is related to population size of the municipalities, the second one takes into account the municipality's hierarchical position within the metropolitan area, and the third one deals with the rural character of individual municipalities.

The dialogical shaping of the Brno metropolitan region

In our empirical examination of the Brno metropolitan region and its heteroglossia, we shall proceed by following the region's hierarchical structure. First, we focus on the strongest voice coming from the metropolitan core (Brno), then we explore the voices of secondary urban centres in the hinterland and municipalities with small populations lying in the hinterlands of these secondary centres, and finally, we analyse the voices of municipalities localized in the rural part of the metropolitan region.

The voice of the core of the metropolitan region

If we analyse the proportion of retail units open at different times throughout a typical week day separately in the core and in the hinterland, we can get an idea of the varying

temporal regimes in the core and the hinterland that express these two areas' different positions within the region (Figure 2).

The graph displaying the proportion of open FMCG shops suggests that people in hinterland municipalities wake up earlier than those in the core. The dominant position of the core and the strength of its voice are manifested here in the rhythms of the municipalities in its hinterland. Shops in the hinterland open sooner than stores in the core because the core's 'time' is being forced upon the hinterland. Time in the hinterland is shifted ahead of time in the core – the discrepancy is the result of the time needed by a significant number of hinterland residents to commute to work or school in the core city. In other words, all inhabitants of the metropolitan region who are tied to the core through various forms of commuting must perform their morning activities, such as getting up, dressing, having breakfast, and shopping, in line with core time. Saying that people in the hinterland perform these activities 'in core time', however, does not mean they do these things at the same time as the inhabitants of the core. Core time is manifested in the hinterland in different ways that are dependent on the time needed to journey to the core. With some degree of simplification, we can say that if the journey from a municipality in the hinterland to the core takes 30 min, keeping in line with core time will shift the beginning of daily activities forward by these 30 min. Likewise, if the journey to the core takes 60 min, time is moved forward by 60 min. The shift in retail opening hours in hinterland municipalities points to the core's dominant position within the entire metropolitan region. Figure 2 shows that in the case of the Brno metropolitan region, shops in the hinterland open on average one hour before shops in the core. The average opening time of all 157 FMCG shops in the hinterland is 6:45 am, while the average opening time of the 886 FMCG shops in the core is 8:00 am There is, however, variability in opening times in both datasets. Whereas the dataset describing stores in the hinterland is characterized by lower variability of opening times – 90% of all shops here open before 7:00 am – the set of stores in the core demonstrates higher variability – retail outlets open gradually

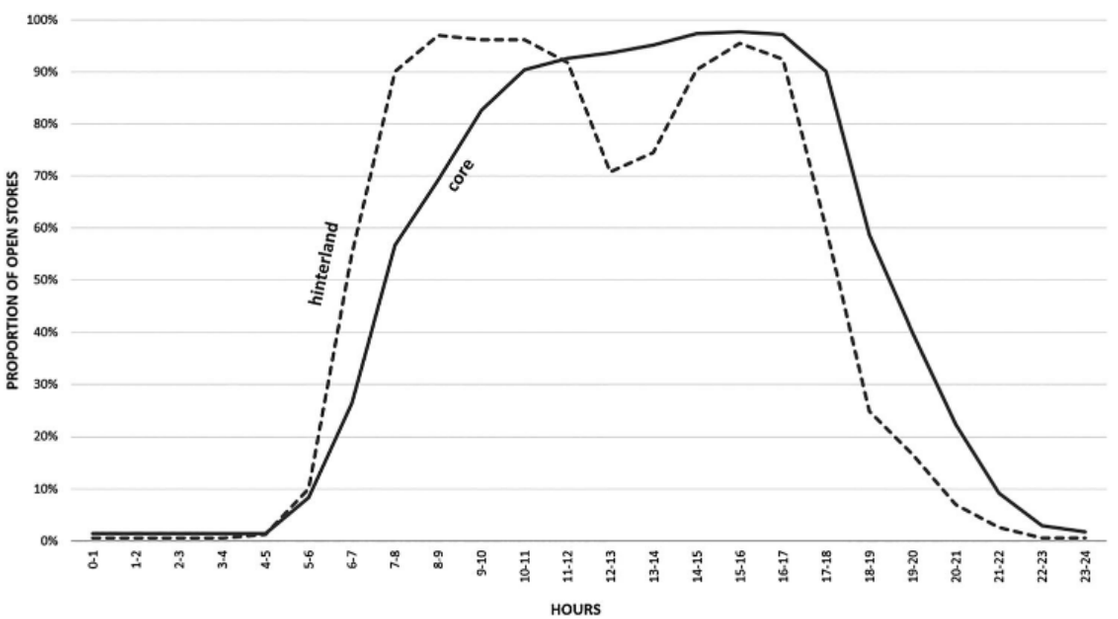

Figure 2. Different temporalities of retail units with fast-moving consumer goods in the core and the hinterland.

over a longer period of time. In the core the same figure of 90% of all FMCG shops being open is achieved only at 11:00 am (see Figure 2). This comparison reflects not only the different behaviour of retail stores in the core and in the hinterland but also, and above all, the different power positions of the core and the municipalities in the hinterland. In the context of regional heteroglossia, the high dominance of the core's voice is expressed by means of the synchronization of time in the hinterland with core time, in other words, by the core's power to entrain the hinterland. However, if we are to avoid a monological view of the metropolitan region defined by centripetal forces, we must disaggregate the collective voice of the municipalities in the hinterland into more subtly defined voice types corresponding with the power position of the given municipalities within the metropolitan region.

The voice of secondary urban centres in the hinterland

Municipalities in the hinterland do not share a single, uniform voice. Each municipality responds in a dialogical process to the core's strong voice based on its own position within the metropolitan hierarchy. Despite the considerable heterogeneity of voices of individual municipalities, we can locate some similarities and identify groups of voices and types of municipalities accordingly. The first type of municipalities that share a common voice consists of larger municipalities with populations of over 3,000. There are five such municipalities in the Brno metropolitan region: Kuřim (11,051 inhabitants), Šlapanice (7,339), Rosice (5,973), Adamov (4,593) and Rajhrad (3,609). These are the most populous municipalities in Brno's hinterland; they are prominent secondary urban centres with relatively developed labour markets and a wide range of services. The voices of these urban settlements are, in the context of metropolitan heteroglossia, also forced to adapt to the core's rhythms, as is demonstrated by the above-mentioned shift in retail opening hours. The grocery store chain Albert (operated by Ahold Delhaize) is a case in point. Albert stores in the core generally open at 8:00 am, whereas the Albert located in Adamov, 20 kilometres away from Brno's centre, opens at 5:30 am (see Figure 3).

The voices of more populous municipalities are distinguished from the voices of smaller hinterland settlements by the frequency and duration of lunch breaks during which retail outlets close. Generally speaking, the smaller a municipality's population, the more frequent the occurrence of lunch breaks is and the longer they are. In Kuřim, the only municipality in Brno's hinterland with more than 10,000 inhabitants, no retail outlets close for lunch. In contrast, in municipalities with populations between 3,000 and 10,000 inhabitants retail stores that close for lunch can be found. The average lunch break here lasts 1 h and 45 min. In municipalities with less than 3,000 inhabitants the average lunch break in FMCG shops lasted longer than 2 h. More specifically, in municipalities with 1,000–3,000 inhabitants the average length is 2 h and 15 min, and in those with up to 1,000 inhabitants, 2 h and 30 min. Moreover, in less populous municipalities, shops not only close for a longer average period at lunch, but they also have shorter opening hours in general (see Table 2).

In hinterland municipalities the existence and length of lunch breaks primarily depends on population, whereas in Brno shop size seems to play a determining role in lunchtime closures. Of the 886 FMCG shops in Brno, 60 close for lunch (i.e. less than 7%). Typically, these are small stores; the average size of shops with a lunch break in Brno is around 22 m^2,

Figure 3. Opening hours of the grocery store chain Albert (Ahold) in Adamov.

Table 2. Opening hours of retail stores in the municipalities of the hinterland and in Brno during weekdays (source: own processing).

Municipality	Average length of opening hours	Average start time of opening hours	Average length of lunch break
Under 1000 inhabitants	9.5	7.0	2.5
1000–3000 inhabitants	10.75	6.5	2.25
3000–10,000 inhabitants	11.0	6.5	1.75
Over 10,000 inhabitants	12.0	6.75	0
Brno	11.25	8.0	1.5

whereas the average size of FMCG retail outlets in Brno is 175 m^2. The average lunch-break length in Brno, however, is shorter than in hinterland municipalities (1.5 h). These findings fully correspond with the conclusions of other studies of the Brno metropolitan region that quantify the relationship between shopping behaviour and municipality size. People living in municipalities with more than 2,000 inhabitants do 70% of their grocery shopping in the municipality of their residency (Kunc et al., 2013, p. 104; Kunc, Frantál, Tonev, & Szczyrba, 2012), whereas residents of municipalities with less than 200 inhabitants do 95% of their shopping outside their municipality (Maryáš, Kunc, Tonev, & Szczyrba, 2014, p. 25).

The five secondary urban centres in the hinterland of Brno speak with a voice that is synchronized with the rhythm of the core; local time is shifted forward to be in line

with core time. Unlike smaller municipalities in the hinterland, these secondary centres feature shops that are open all day without any interruptions; there is also a lower frequency of lunch breaks here, and the average length of opening hours is comparable to that of retail units in the core. Although time in these municipalities is highly influenced by the voice of the core, they have managed to maintain their own rhythms in part, mainly because a significant percentage of local residents remains in these secondary centres throughout the day, despite strong commuting flows to the core. During the work week, the number of people present in the secondary centres even increases thanks to commuters from neighbouring municipalities.

The voice of municipalities with small populations in the hinterlands of secondary urban centres

In Brno's hinterland there are also municipalities in which FMCG shops are generally not open all day but which still have the minimal critical population size necessary for ensuring the economic profitability of retail outlets. The voice of these municipalities differs from that of secondary centres because these settlements respond to the dominant voice of the core in a different and peculiar way. In order to adapt to time in the core, the shops in these municipalities have moved their hours forward and open earlier. Unlike stores in secondary urban centres, however, they mostly do not maintain uninterrupted opening hours (see Table 3).

Establishing the threshold of the proportion of stores with a lunch break to define this group of municipalities that share a voice would be an arbitrary act. Instead, we can note some of the similarities between the municipalities in this group: they have relatively small populations and generally lie further from the core, in the spheres of influence of secondary urban centres. These municipalities also lack a complete range of civic amenities (retail, public services, offices, schools, medical facilities, etc.) and a sufficient job market. Their inhabitants therefore commute for work and services, either directly to the core of the metropolitan region or to the region's secondary urban centres. Shops'

Table 3. The list of municipalities in the hinterland of the metropolitan region with the highest proportion of FMCG stores with a lunch break (source: own processing).

Municipality	Population	Number of stores	Number of inhabitants per one store	Number of stores with a lunch break	Proportion of stores with a lunch break
Hvozdec	303	1	303	1	100.0
Kanice	927	1	927	1	100.0
Ponětovice	404	1	404	1	100.0
Babice nad Svitavou	1152	3	384	2	66.7
Holasice	1121	4	280	2	50.0
Kobylnice	1077	2	539	1	50.0
Křtiny	823	6	137	3	50.0
Moravské Knínice	901	2	451	1	50.0
Otmarov	325	2	163	1	50.0
Popovice	351	2	176	1	50.0
Šebrov-Kateřina	796	2	398	1	50.0
Velatice	699	2	350	1	50.0
Blažovice	1217	5	243	2	40.0
Prace	959	5	192	2	40.0

earlier opening hours, the relatively smaller population of these municipalities, and the significant number of inhabitants commuting outside the municipality result in shops interrupting their opening hours for a certain period of the day. In other words, opening hours correspond with peak activity times in these municipalities, that is, when residents leave in the morning and when they return home in the afternoon. The voice of these municipalities is thus expressed not only through the synchronization of local time with core time (or the time of the secondary centres) but also through the interruption of the opening hours of retail stores. In this group we find municipalities with shops that open only for very short periods in the morning and afternoon. The shop in the village of Popovice exemplifies this phenomenon: in the morning it is open between 7:00 and 8:30 am and then again in the afternoon between 3:00 and 4:30 pm Talking about a 'lunch break' in this case ceases to make sense; this 6.5-hour break is an interruption in the shop's operating hours that splits one daylong retail cycle into two cycles within one day (one in the morning and one in the afternoon). Even in stores without such strictly polarized opening hours, salespeople often spoke about 'rush hours', which reflect the arrival and departure times of buses and trains in the morning and afternoon (Figure 4).

The voice of these municipalities with a significant proportion of stores with long lunch breaks is obviously weaker than the voice of the core and the voice of secondary urban centres. They are not only fully entrained with the core's rhythm, but unlike the secondary centres, they are also not able to maintain shops with uninterrupted opening hours due to local temporalities and rhythms. Stores here are thus to a large extent open only in keeping with time in the core. Syncing with core time results in the concentration of activities in these municipalities into two relatively strictly defined intervals during the day and in a dearth of activity in the middle of the day. The voice of these municipalities is expressed by interrupted opening hours and thus by the division of a single daylong retail cycle into two distinct parts, one before commuters depart from the municipality and the other after they return home.

The voice of the rural part of the Brno metropolitan region

Another type of voice that can be identified in the metropolitan region is expressed in the form of retail opening hours cycles. In the FMCG retail segment, the core has the most strongly developed daily rhythm, which is relatively stable over the course of the year. The weekly rhythm is considerably less developed. The opening hours of many stores in the core, chain stores in particular, are the same during the week and at the weekend.

The dominance of daily rhythms is not so significant in the municipalities of the hinterland. The dominant, primarily working rhythm of the core is complemented here by other types of longer cycles, the rhythms of the Church calendar and seasonal rhythms. In smaller municipalities with higher religiosity, for example, shops many be open for longer on Sunday than on Saturday, as opening hours are modified to serve people on their way to and from Catholic mass.

In other cases in more rural parts of the metropolitan region, the rhythm of retail shops often reflects seasonal cycles. There are often differences in opening hours between the warmer months of the year and the colder months. Salespeople often pointed to the effects of transitioning from summer to winter time and vice versa (see Figure 5). Sometimes the rhythms of shops correspond with the number of tourists. One salesperson

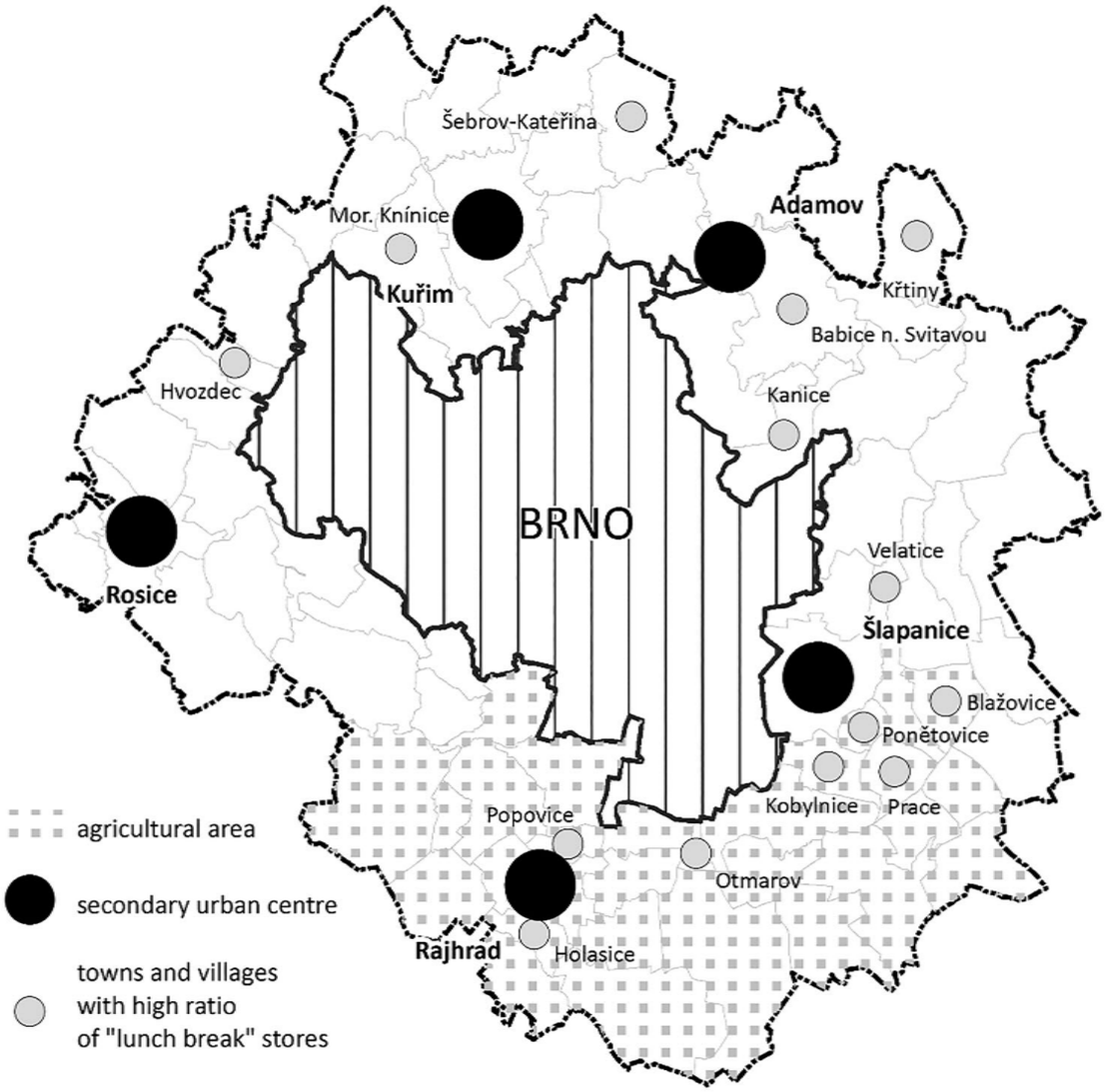

Figure 4. The spatial distribution of municipalities with at least 40% proportion of FMCG stores with lunch break.

commented upon this situation with the following words: 'Without cyclists it doesn't make any sense; in winter I will close on Mondays, Tuesdays, Wednesdays and Thursdays, and I will only keep it open for the weekend'. Some shops completely close down in winter and go into 'retail hibernation'. In other words, these shops do not just have daily lunch breaks; they also have seasonal 'winter breaks'. The salespeople often associated the peak season with light, warmth and summer gardens as well as with specific products, such as ice cream, popsicles and shaved ice. Other shops follow seasonal cycles that revolve around sports, such as swimming or outdoor football. As one informant stated, 'I open in keeping with football. The training season starts on 10 March and ends on 14 November; after that it makes no sense'.

It is interesting to note that seasonal rhythms in opening hours do not concern all municipalities in the hinterland and are not directly dependent on population size or on a municipality's distance to the core. Opening hours in winter were most often adjusted or fully cancelled in traditionally agricultural municipalities located south of Brno, such as Ořechov, Blučina, Syrovice, Rajhradice, Blažovice, Kobylnice and Rebešovice.

Figure 5. Different opening hours of stores in the summer time (left) and in the winter time (right) in Rajhrad.

Suburbanization, which often significantly alters the social structure of hinterland municipalities, occurred later and with less intensity in the southern part of the metropolitan region than in the northern part (Sýkora & Mulíček, 2012). One can thus speculate about how people in the south of the metropolitan region embrace seasonal agricultural rhythms that have not been significantly disrupted by the arrival of a large number of suburban migrants from the the core.

The voice of this subgroup of municipalities located primarily in the southern and south-eastern part of the metropolitan region corresponds with the above-described voices of non-secondary-centre municipalities in the hinterland. Nevertheless, their voice is distinguished by seasonal variations in opening hours. In general, retail services in rural settlements are more accessible in the summer than in the winter. The voice of rural municipalities is to a certain extent in opposition to the voice of the dominant core. The voice of the core does not reflect yearly rhythms in the opening hours of retail shops at all, and although this voice is the strongest one in the region, the rhythms and the voice in its southern part is somewhat specific.

Conclusion

In this paper we have applied the concept of heteroglossia as a tool for describing ongoing, never-ending power negotiations in the metropolitan region and its internal structure. In the empirical part we presented four specific voices present in the Brno metropolitan region. The first and most powerful one is the voice of the city of Brno, this metropolitan region's urban core. The core's voice is so strong that it influences, or rhythmizes, time in the municipalities in its hinterland. Hinterland municipalities in the region are tied to the core via statements operationalized here as commuting flows from the municipality to the core. To keep sync with time in the core, municipalities must shift their time forward to

allow for the time needed to commute to the core. The core thus maintains its dominant position, as the municipalities that surround it adjust their daily rhythms and local times to accommodate those of the core. The second voice is articulated by five municipalities with large populations in Brno's hinterland that we have designated as the metropolitan region's secondary urban centres. These municipalities' distinct voice stems from a certain degree of temporal autonomy; local rhythms in these towns are not unconditionally based on those of the core. Daily commuting flows from these municipalities to the core are not so significant that the rhythm of the entire municipality must sync itself up with the temporal patterns of the distant core. Because a permanent customer base is always present in these places, local shops generally do not close for lunch and remain open throughout the day. The third voice is expressed in the rhythms of municipalities with smaller populations located farther from Brno, in the hinterlands of the region's secondary urban centres. The voice of these municipalities is characterized by their weak position within the region that stems from their small populations and workforce size and from the daily departure of a critical number of inhabitants. These factors result in a non-autonomous temporal regime that is illustrated by the higher proportion of shops that close for lunch. The fourth voice belongs to municipalities in the traditionally agricultural southern and south-eastern part of the metropolitan region. The municipalities in this group have in common rhythms that are not only determined by work patterns throughout the day and week. The voice of these municipalities is articulated by longer-term retail cycles that are linked to changes in season.

These four groups of voices enable us to describe the internal spatiotemporal heterogeneity of the Brno metropolitan region. In this study we explored the different forms of dialogical negotiation occurring in the Brno metropolitan region during a specific period (summer 2015). Our findings indicate how this metropolitan region is spatiotemporally organized. The voices of individual municipalities as well as the collective voices of municipality types are involved in the ongoing negotiation of the metropolitan region. These voices include both spatial aspects (particular location of a municipality within the metropolitan region, spatial pattern of commuting flows) and temporal aspects (expressed through the opening hours of FMCG shops). Hence, these voices can be treated as spatiotemporal characteristics of the region and their collective heteroglossia as a spatiotemporal description of the metropolitan region as a whole.

There is, however, a strong positional element to this spatiotemporal description of the region. From the perspective of municipalities with smaller populations located in the hinterlands of secondary urban centres, the rhythm of the metropolitan region's space–time begins with an early start of daily activities, as the time of getting up is offset before the usual times of getting up in the core city. It continues with the division of the day into two parts and the suppression of local midday activities, and ends with an increase in activities in the afternoon hours closely tied to the arrivals of the public transportation connections. From the perspective of the core, the description would start later in the morning and develop more gradually. Activities during the second half of the day reach a constant level, and the absolute activity peak is in the evening or even early night. Each of these voices describes the time–space of the metropolitan region faithfully and truthfully. Nevertheless, the acceptance of only one of these descriptions based solely on one voice would be a step back from the dialogical conception towards the centripetal forces of the monologue.

The main value of heteroglossia lies in its ability to enable an unlimited number of different voices, even contradictory ones, to be heard side by side and to interweave these voices with each other. The description of a metropolitan region is thus not a description of one place from one perspective, but rather a description of a dialogue, that is, the way in which this dialogue is carried out. In this paper we examine one temporal cross-section of this ongoing dialogue. The spatiotemporal description of the dialogue, as it is presented in the empirical part of the article, is structured around a spatial understanding of the region. The metropolitan region is divided into territories with specific temporal regimes and rhythms. But the dialogical interactions in the region could also be described temporally; the result would be a chronological depiction of the region. For example, if we choose one day as the basic timescale, the description of the region would 'begin' when hinterland municipalities get up in the morning. The earliest risers would be municipalities whose inhabitants need the most time to commute to the core or to the secondary centres. Then municipalities with shorter commutes would wake up, finally followed by the core. As people throughout the region gradually wake up, the slowing down of activities in smaller hinterland municipalities could be observed until these places 'shut down' for a midday break as the intensity of activities in the core persistently increase. This chronology would continue in the afternoon with the start of the second daily cycle of smaller municipalities in the hinterland, triggered by the return of commuters from the core or from the secondary urban centres. The afternoon cycle of activities in hinterland municipalities would then eventually cease, followed closely by the closing of shops in secondary urban centres. At this point the number of open stores in the core would reach its maximum, before decreasing with the onset of the evening and night.

Describing the metropolitan region's time–space in temporal terms would highlight different aspects of the current state of the regional dialogue. However, regardless of whether such descriptions focus on spatial or temporal aspects of the region, they can both be considered spatiotemporal descriptions. Both stress the key processes in creating time–space: interaction, interconnection, and the mutual negotiation of different places and different times. When hinterland municipalities adapt their temporal patterns to time in the core, the time of one specific place enters the time of another place. Such temporal changes are not uniform throughout the region, however. In some areas of the hinterland time is shifted forwards to adapt to time in the core only, whereas elsewhere the day is also divided into two parts to accommodate the core's temporal patterns. Thus, time in the hinterland conforms to time in the core. The hinterland reproduces the core's rhythms, confirms its power position, and contributes to its activities throughout the day. Employing the concept of heteroglossia, we can view the metropolitan region as a functional entity – not only in spatial terms but also in spatiotemporal ones. Even though the spatiotemporal understanding of the metropolitan region is firmly anchored in a relational reading of the metropolitan region, temporal and spatiotemporal aspects of negotiation do not play a prominent role in the wider context of metropolitan-region studies. The tendency to apply spatial readings of regions that highlight their spatial heterogeneity leads to undervaluing regions' temporal and rhythmic heterogeneity and multiplicity. Emphasizing the spatial aspects of metropolitan regions contributes to the creation of rather uniform planning narratives, most often monological ones told from the perspective of the metropolitan core or cores. In contrast, the temporal or

spatiotemporal imagining of metropolitan regions is more dialogical in nature. It offers multiple narratives of the metropolitan region told from different perspectives and thus to a certain extent enriches the universalizing spatial-planning understanding of the territory. Temporal and rhythmic factors, however, also contribute to the daily 'becoming' of metropolitan regions. For example, the timetables of suburban trains, the periodization of rush-hour traffic, and the opening hours of retail shop all contribute to forming the metropolitan region. These spatiotemporal aspects of the metropolitan region and their planning implications are certainly interesting and promising subjects of research.

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Urban chronopolis: Ensemble of rhythmized dislocated places

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ABSTRACT

Urban rhythmicity, the topic of this paper, is to a certain extent a reflexion of the current discourse on approaches to urban research. The presented paper approaches everyday urbanism through rhythms. An urban place can be defined not only by its spatial attributes, but also through its affiliation to a particular spatio-temporal system. For this purpose the paper employs two theoretical traditions – Lefebvre's rhythmanalysis and Bakhtin's concept of chronotope. Lefebvre's rhythmanalysis should be seen here primarily as a framing outline, whereas Bakhtin's chronotope provides considerably more analytical power to delimit temporally-defined urban place as a typological category. These two traditions however offer only limited possibilities to follow temporal connections among the set of spatially dislocated places. For this reason, this paper develops Laguerre's concept of chronopolis, reconceptualised at the city-scale level. This paper aims to (i) further explore the nature of "urban polyrhythmia"; (ii) describe particular places as specific chronotopes; (iii) identify particular types of chronotopes based on the similarity of rhythmical profiles (chronopolis); and finally, (iv) to define the city as a set of particular chronopoles. The empirical part of the paper analyses a selection of localities within the space of Brno, Czech Republic. Based on long-term observations, a daily rhythm profile was described for each of 18 chosen urban localities. Particular types of chronopoles are identified according to their common rhythmical profiles stemming from the presence and absence of human users. The empirical part of the paper identified four different chronopoles (work-cycle, return, hot-spot, centre) that enable a description of the city as an ensemble of temporally rhythmized and spatially dislocated places.

1. Introduction

Urban rhythmicity, the topic of this paper, is to a certain extent a reflexion of the current discourse on approaches to urban research. For a long time, the subject of urban geography research seemed to be the city as a spatially fixed unit; the city as a Russian nested doll, dissembled into more detailed scale levels of districts and localities and assembled back into a uniform, relatively static and easy to interpret entity. Given the discipline's long survey and map making tradition, geographic approaches have always accentuated more static strategies of city imaging. Any urban variability and dynamics were largely seen as a result of the linear flow of time and documented through 'specific time-space samples' ignoring, however, the 'co-presence of multiple spaces, multiple times and multiple webs of relations, tying local sites, subjects and fragments' (Amin and Graham, 1997, p. 417–418).

New urban theory somewhat differs in its perception of the city. As Hubbard states, the 'tendency is therefore to emphasise the footloose nature of contemporary life, and to emphasise the stretching of relations of all kinds across both time and space' (Hubbard, 2006, p. 2). Relational approaches (Jacobs, 2012), various forms of deterritorialisation of the city, and concepts undermining the traditional idea of the discrete city (Crang, 2000) exceed the traditional topographical view of the urban space by applying more of a topological perception of the city and urbanism. However, the attention paid to a non-hierarchical, multi-scale and poorly-grounded relational processes leads in many cases to a situation termed an 'urban impasse' by Nigel Thrift (Lees, 2002, p. 102). The city itself is less emphasised as a subject and object of research, and urban issues are separated from urban materiality. The preference for global-local linkages often overshadows meanings, rhythms and locally given specificities of urban everyday life – in other words, the plurality and simultaneously the significant banality (Amin and Thrift, 2002) of everyday urban spatiality and temporality.

The presented paper approaches everyday urbanism through rhythms. A location's rhythmic profile is regarded as its inherent characteristic, which is not only shaped by present attributes but makes present/visible a whole range of placemaking factors that are locally hidden or absent at the same time, and thus puts the location within the broader space-time system of the city. The empirical part of the paper analyses a selection of localities within the space of Brno, Czech

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Republic, a city of approximately 500,000 inhabitants. Based on long-term observations, a typical daily rhythm profile was described for each of 18 chosen urban localities and then decomposed in an effort to identify its carrier and determine the current position of the locality within the context of the mentioned spatio-temporal organization of the city. The rhythm of a place is created by the actors present, while simultaneously defining these actors through the nexus of space and time. The morning train station belongs to commuters, mid-day city centre belongs to people going to lunch, with the advent of night, the same area is adopted and appropriated by visitors to bars and night-clubs. However, these examples are merely ideal samples of typical places during typical times. Apart from them, myriads of rhythmically hybrid places exist within the space of the city, localities with mutually diffusing temporalities and a complicated structure in the resulting rhythm. These are unitary locations in a spatial sense, but temporally layered and defined by a number of overlapping rhythmicities. They are places of fusion and spatio-temporal negotiation, places that can, in accordance with Lefebvre (Lefebvre et al., 2004), be called polyrhythmic. A similar logic can also be transferred onto the scale of an entire city. Urban space-time is an ensemble of rhythmised places, a more or, by contrast, less synchronized environment, a system of a single rhythm or, on the contrary, a polyrhythmia.

The paper has two research questions, a main research question and a specific research question which is application-oriented. The main research question reads as follows: *How does one describe the spatio-temporal structure on a city-scale?* The specific research question is: *Is it possible to employ the chronopolis concept in order to describe the spatio-temporal structure on a city-scale level? And in what way?* The specific research question holds the ambition of taking the concept out of the supra-national or global scale (Laguerre, 2003a, 2003b, 2007, 2010) and implementing it on the city-scale level.

The paper is divided into several sections. The introductory theoretical section discusses two concepts, which, to a varying extent and from slightly different viewpoints, theorise urban rhythms while outlining the tools for their empirical research. Attention was paid first to Lefebvre's rhythmanalysis and polyrhythmia respectively, emphasizing rhythmical unity of time and space, so meaningful to the conception of place on various scale levels (Pafka, 2013). Second, to Bakhtin's concept of chronotope, which represents, among other things, a spatio-temporal analytical unit in which place-based rhythms can be captured and analysed. A chapter addressing the ensemble of various chronotopes within city-scale space more specifically follows the theoretical introduction. Reaching the methodological and empirical issues, the term polis, or chronopolis, was taken out of its traditional context and redeveloped in order to grasp rhythmical analogies within a set of spatially dislocated urban places (urban chronotopes). Consequently, the methodology of the empirical work taking place in Brno, Czech Republic and the primary data used in the paper are presented. In the empirical part of the paper, the particular types of chronopoles are identified according to their common rhythmical profiles stemming from the presence and absence of human users.

2. Polyrhythmia – Different coexisting rhythms

Numerous works dealing with the topic of urban rhythms refer in their introductions to the work of Henri Lefebvre, specifically his text Rhythmanalysis (Lefebvre et al., 2004), which outlined the framework for perceiving temporality within a multiscalar concept – from the rhythms of the body to the rhythms of the locality or city. The emphasis placed on repetitive activities, movements and processes logically de-emphasizes the analytical significance of abstract linearly-flowing time for the benefit of localised cyclic time. According to Lefebvre, rhythm anchors time experience in physicality and in the material world. It is actually localisation and materialisation of time through rhythm that makes the concept of rhythmanalysis interesting for analytical use. Rhythm is not the object of analysis, it is itself an analytical tool that allows the research subject to be approached holistically as an 'open totality' (Lefebvre et al., 1996, p. 230). By open totality Lefebvre means metastable equilibrium which can be visualised, for example, as a city street animated during the course of a weekday by expected and regularly recurring activities and events. An event deviating from the established balance (e.g. a car accident, a demonstration) then significantly sways the usual rhythm, changing thus the identity of the place – the street ceases to be a street in the original sense of the word.

To underpin the complicated nature of the everyday life of the city, Lefebvre's proposed categories of polyrhythmia, eurhythmia and arrhythmia can be extremely well utilized, despite being primarily analogical, to describe corporeal rhythms. Polyrhythmia refers to a diversity of rhythms and represents a set of different rhythms coexisting within the observed totality. In the case of eurythmia, there is a mutual harmonious coordination of rhythms or a partial synchronization. Arrhythmia, by contrast, brings an almost pathological discrepancy of rhythms, perceived as a conflict or a problem (Laban, 2014). Therefore, if for the purposes of the study we assume that the space-time of the locality or of the city is a polyrhythmic set, the degree of (de)synchronization between various rhythms can be discussed.

Schwanen, Van Aalst, Brands, and Timan describe the complex relationship between the rhythms of specific locations as entrainment: 'Entrainment is the process of synchronisation whereby certain elements – Zeitgebern or pacemakers – impel others to take over or adjust to their rhythm' (Schwanen et al., 2012, p. 2069). Entrainment should be considered a struggle or negotiation between individual rhythms, taking place under the specific conditions of a given location and producing, at the same time, a rather idiographically capturable temporal identity of a locality. Polyrhythmia thus enables a place to be treated as a localised intersection of numerous diverse rhythms; however, not as an intersection at one point, but as a breakthrough of rhythms over a certain time period. Thus, the polyrhythmia of a place represents here a specific localised intersection of different rhythms during the day, a sort of resultant aggregated daytime rhythm of a place. When going beyond the scale of a place, it is possible to consider the whole city in a similar way, as a bundle of different city rhythms. In this context, Lefebvre's other work, *Writing on Cities*, in which Lefebvre compares the rhythmicity of the Mediterranean and Northern European cities (Lefebvre et al., 1996), takes on significance. In his analysis, however, the cities are not compared on the basis of a single city time, but on the basis of an ensemble of rhythms (Lefebvre et al., 1996, p. 230), also cited by some authors as an 'assemblage of different beats' (Crang, 2001, p. 189) or a 'polyrhythmic ensemble' (Degen, 2010, p. 25). These authors usually do not understand the city as one abstract temporality, but, like in the previous case, as an intersection of numerous different rhythms. While a place can be seen as an indivisible entity that is shaped by the encounters of rhythms in its entirety, the city shows different characteristics. The city is spatially divisible as it consists of individual places; specific urban rhythms are linked to typical urban locations, not to the city in its indivisible wholeness. Therefore, the polyrhythmia of a place and the city is not exactly the same. While the polyrhythmia of a place has a simple geography in that it is local, that all its rhythms concern only one location, the polyrhythmia of the city shows a more complicated dislocal geography in which all urban rhythms do not concern all parts of the city. Thus, rhythmanalysis is not just a tool for in-depth study of one single place (Wunderlich, 2010; Kärrholm et al., 2015; Osman et al., 2016), it can also be employed 'to explore the everyday temporal structures and processes that (re)produces connections between individuals and the social' (Edensor, 2010, p. 2) in a city-wide spatiotemporal context; in our case, the connections between individual human day paths and the city time-space.

3. Chronotope – Polyrhythmia of place

Lefebvre's rhythmanalysis is a very powerful concept provided we perceive rhythms strictly as an instrument of analysis and not as its

subject. Applying the view 'from the window' (Lefebvre et al., 2004), we can perceive the street, city square or any other single urban place in its space-time complexity. However, if we try to focus on the rhythm in order to understand the rhythmicity and temporal similarity of multiple urban places, other concepts need to be used. One of the so far only little-researched conceptual issues is the method of analytical approach and, in particular, the representation of the process of place-based entrainment described above. Selected authors (e.g. Folch-Serra, 1990; Holloway and Kneale, 2000; Ørstavik, 2005; Crang, 2001, 2005, 2011, 2012) refer to the concept of chronotope, which could serve as the framework allowing the capture of the polyrhythmic nature of an urban place and the characterisation of the place through this localised rhythm as a time-space entity (Mulíček et al., 2015). The author of the chronotope concept, philosopher and literary critic Mikhail Bakhtin, used it to analyse the appropriation of time and space in literary works. He perceived the chronotope as an analytical unit studying text (place) in terms of distribution and the character of the individual represented spatial and temporal categories with emphasis on their dialogical connection (Bakhtin et al., 1981). What is significant here is the interpretative function of the concept, the emphasis on negotiating the meanings of a specific place at a specific time, or specific time in a specific place (compare with the concept of kairos; Rämö, 1999). The chronotope does not describe the space-time of a place as an entity that can be grasped graphically, but as an entity that can be grasped (and understood) only through 'narrative visualization' (Folch-Serra, 1990, p. 258).

A very pragmatic application of the chronotope concept is present in the works of Italian authors concerned with urban time policies in particular (e.g. Bonfiglioli, 1997). Stabilini et al. (2013, p. 122) perceive and use chronotope as:

> 'inhabited place, where urban space meets the temporality of social interaction, which is regulated by public action for economical purposes (working hours), for social purposes (enabling the meeting among people and things) and for cultural purposes (local life traditions, marked in the historical and geographical features of the place)'.

Although this understanding of chronotope is rather influenced by the normative character of Italian time policies, it implicitly expresses the dialogue between the temporality of everyday social life and the materially perceived spatiality of the city. The application approach to chronotope also places major emphasis on absence/presence or co-presence of permanent or temporary users as the most important element creating a 'temporal architecture of a place'. Also discussed is the multiscalarity of the concept enabling the city to be perceived as a set of different chronotopes more or less tightly bound into the form a relational network (Mareggi, 2002). In this specific context, however, the expectations remain unfulfilled as the relationships between particular chronotopes are not specified in any way and the network of these chronotopes is not described in detail. Multiscalarity thus remains in the simple spatial description of the city as an unrelated set of isolated chronotopes. In this view, chronotope plays an important role in the spatio-temporal description of the polyrhythmia of individual urban places; however, it is less useful in the description of the polyrhythmia of the whole city (Bonfiglioli, 1997; Mareggi, 2002; Stabilini et al., 2013). Therefore, the chronotope concept in this article is used only to describe the polyrhythmia of individual urban places. By employing the chronotope, the locality can be grasped not only in a spatial/graphical way as a delimited piece of space, but also in a spatio-temporal way (graphically and narratively) as a timed, rhythmized place.

4. Chronopolis – Polyrhythmia of city

The concepts presented so far hold different relations to the needs of empirical research on complex city-scale polyrhythmia. Lefebvre's rhythmanalysis should be seen here primarily as a framing outline, a coherent but rather elusive way of thinking about the integrated spatio-temporal organization of the city. In this light, Bakhtin's chronotope provides considerably more analytical power to delimit temporally-defined urban place, first and foremost as a typological category. It offers, however, only limited possibilities of following temporal connections or analogies among a set of spatially dislocated places. In this respect, the concept of polis represents a more useful departure point not only for further theorisation, but for a more effective empirical description of particular chronotopic types that co-produce a complex spatio-temporal structure. The term polis originates in ancient Greece and has various meanings depending on the territorial and historical context. Polis is often translated as a city-state, however it cannot be considered a city from a contemporary perspective. The centre of Sparta consisted of only four villages – in spite of that, Sparta was a fully-fledged polis. The use of the term state is somewhat misleading too. The polis represented an agglomeration of people, a social group with a strong bond to a certain territory, not an abstract political entity emerging later on in medieval Europe. Even territorial attachment cannot be treated as a clearly defined attribute. In the case of the evacuation of Athens, there was always the option for the polis to exist in a new territory (Starr, 1986, p. 36–37). Although the existence of the polis was conditioned by certain territorial settings, the loss of territory did not always lead to the demise of the polis. Polis can thus be conceptualized as a territory with an internal order, where a specific set of single rules and laws is applied. It is a territory bound together by specific common activities, traditions and habits. The Athens polis, for example, was integrated through intensive maritime trade – the network of commercial ties interconnected communities spatially scattered across a number of remote islands (i.e. dislocated places); a shared organizing and integrating principle linked the non-contiguous area into the single polis (Parker, 2004, p. 40). Thinking more generally, the polis concept enables the integration of places into a more topological sense, where 'the gap between here and there is measured less by miles or kilometres and more by the social relationships, exchanges and interactions involved' (Allen, 2011, p. 284).

Chronopolis then represents a concept describing a polis in terms of its handling of time. Days, months, holidays and the very concept of time, with which the entire polis organized itself, was a public matter; its specific form was negotiated and its final shape had to be a result of at least a tacit consensus amongst a whole community (Clarke, 2008, p. 26). In other words, chronopolis is the expression of the coherence between the time culture of a community and the territory where this temporality applies. A number of authors speak in this context about diverging from geographically or spatially based conceptualizations of contemporary phenomena (globalisation, cosmopolitisation, transnationalisation, multicuturalisation, migration, acculturation, integration, segregation, etc.), favouring instead time-based conceptualisations of these phenomena (Cwerner, 2000; Adam, 2003, 2004). Time is thus no longer conceived as something external, but, on the contrary, as an integral part of a society's values (Coser and Coser, 1990, p. 191) which constitute, in part, the culture one has been socialized into (Adam, 1990, 1995; Nowotny, 1992). These assumptions are used by the social anthropologist, Michel Laguerre, who employs the concept of chronopolis to describe the temporal organization of transnational or transglobal communities. Laguerre perceives chronopoles as social or cultural entities (communities) which use similar temporal rhythms that differentiate them from each other (Laguerre, 2003b, p. 24), that differentiate them from the mainstream of society (Laguerre, 2007, p. 26), and that are spatially concentrated in enclaves across states (Laguerre, 2003b, p. 3). By time culture and shared rhythmicity of a community, Laguerre means maintaining inherent national calendars of ethnic holy days and holidays, developing a different weekly peak day, and a different business week cycle (Laguerre, 2003b, p. 26–27), separate from, and in competition with, mainstream practices (Laguerre, 2003b, p. 2). He considers religion the bearer of different time cultures, which he illustrates using the examples of Jewish and a Muslim chronopolis.

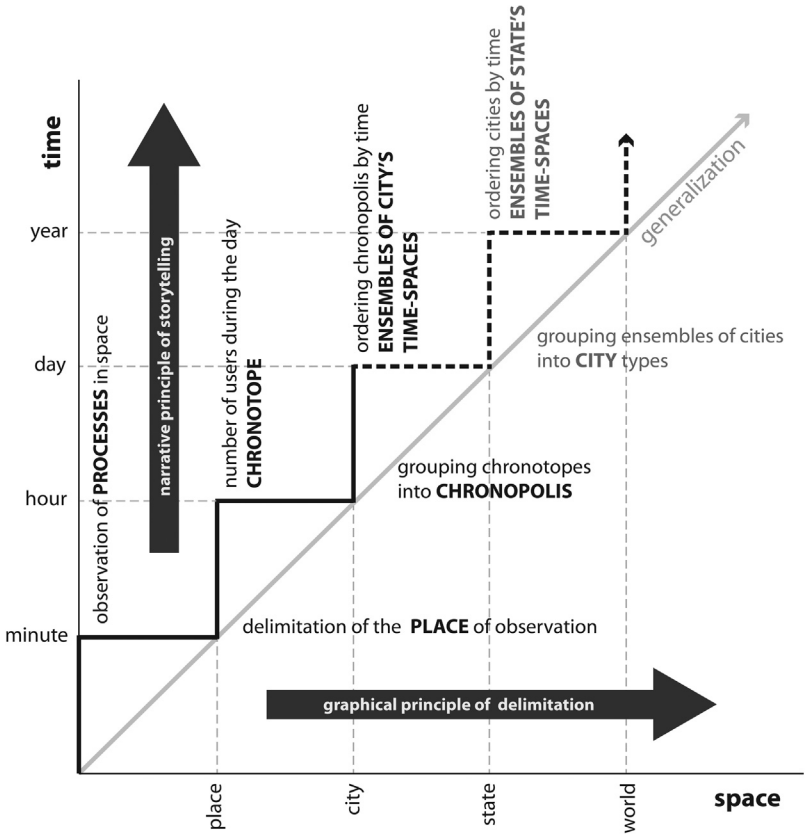

Fig. 1. Spatio-temporal analysis procedure – alternation of the narrative storytelling principle and the graphical delimitation principle.

> 'The chronopolis … is not simply a local entity, but is also and foremost a transglobal production. Globality implodes in the local structure and in the process temporizes its behavioral expression. […] Immigration simply implies a continuity of that practice, and in a sense transnationalizes and globalizes it. The Muslim living in New York is in temporal harmony with the homeland and with Muslims throughout the world as they are united by the temporal rhythms of their practice'.
>
> Laguerre, 2003a, p. 75–76

While the Muslim chronopolis represents a local materialisation of global networks, the aim of this paper is to sketch out the concept of chronopolis on the city-scale. As shown above, the chronopolis is to be partially reformulated in order to cover a number of urban places showing analogous rhythmic patterns, i.e. a number of identical chronotopes. Its presented meaning is built through a sequence of steps linking and developing particular spatial and temporal analytical categories into a single polyrhythmic reality (see Fig. 1). Identification and narrative description of temporally significant processes operating within the space enables an intuitive delimitation of places, i.e. localities that can be meaningfully defined in spatial (borders, structure) as well as temporal (fluctuations, rhythms) terms. Uncovering the typical place-making rhythms natively attached to a particular locality we proceed to chronotope, representing a basic building block of the structured time-space under investigation. In spite of the idiosyncratic nature of each chronotope, they can be categorized according to their rhythmical profiles, based, at least in the case of this paper, on the fluctuating presence of human users. The chronotopes attached to different (distant) localities but showing analogical rhythmical profiles represent chronopolis. Regardless of their position within the space, they are interlinked through common rhythmicity; referring back to the Athens polis example, a single chronopolis comprises the "islands" where time is spatialized in a similar way and where the course of the rhythm shows the same pattern. Chronopolis represents a specific approach to space and time that 'allows for events elsewhere to be folded into the here and now of daily life' of the city (Allen, 2011, p. 283). At the same time, it at least partially meets Crang's call for a new kind of topological imagination that grasps 'temporally simultaneous activities in spatially discontinuous locations' (Crang, 2000, p. 307). Like chronotope, chronopolis is primarily an analytical construct capable of covering spatio-temporality on the supra-local level. In this respect, we can approach the city as an ensemble of various chronopoles, and each chronopolis as an ensemble of various chronotopes. The deployment of this kind of analytical term is not purposeless – it brings a structuring principle to urban becoming (Amin and Thrift, 2002). There are differences between particular chronopoles, stemming from different distributions of rhythm peaks throughout the day. The transfer of people between places produces a temporal and procedural ordering in which specific chronopolis at specific times become the core units of encounters, transactions and intersections. By combining the polyrhythmias of individual places (chronotopes) into equally rhythmized but spatially dislocated polyrhythmias (chronopolis), there is a shift from topographically fixed chronotopes to more topologically defined chronopoles.

5. Methodology

This paper aims to (i) further explore the nature of "urban polyrhythmia", (ii) describe particular places as specific chronotopes, (iii) identify particular types of chronotopes based on the similarity of rhythmical profiles (chronopolis), and finally (iv) to define the city as a set of particular chronopoles. The main research question, the answer to which will be sought, reads as follows: 'How does one describe the spatio-temporal structure on the city-scale?' The main research question does not look for the city defined as an undifferentiated and uniform entity of one time and one space. Inspired by Lefebvre's polyrhythmia, it instead sees the city as rather heterogeneous ensemble of places and times that fuse into various time-spaces. On the other hand,

the main research question still calls for some kind of synthetising description of these coordinated couplings of various places and times. There is no need to structure the city solely in spatial terms, taking it place by place (from the centre outward, from east to west) or solely in temporal terms, period by period (from Monday to Sunday, dawn to dusk). The aim is to depict the spatio-temporal pattern decomposing the city into a set of temporalised places and localised times – chronotopes. In other words, the research question can be more specified in the following way: *How does one describe the city as an ensemble of mutually interconnected chronotopes?* The secondary, more application-oriented question is: *Is it possible to employ the chronopolis concept in order to describe the spatio-temporal structure on a city-scale level? And in what way?* The concept of chronopolis was not newly constituted in the paper – it was just reformulated to fit the city-scale. The secondary research question thus carries the ambition of taking the concept out of the supra-national or global scale (Laguerre, 2003a, 2003b, 2004a, 2007, 2010) and implementing it at the city-scale level, as well as confirming its capability to uncover the spatio-temporal city structure.

In order to fulfil the research questions, it is necessary to delimit the area under investigation in (i) spatial, (ii) temporal, and (iii) empirical terms. Spatially, this article is primarily based on data acquired in the second largest city of the Czech Republic – Brno.[1] Brno itself, however, is not the subject of interest. It is a research field for the study of the real research subject: the description of linkages between chronotopes. The description of the city of Brno is thus not important, as the principal focus of the research is the depiction of spatio-temporality on the scale of the city. This type of research could in fact be done in any city; the selection of Brno was based on criteria such as the geographic and economic accessibility of the observation. The observation itself was focused solely on Brno's public spaces. Virtual or cyber spaces (Batty, 1997; Kitchin, 1998a, 1998b; Dodge and Kitchin, 2001; Crang et al., 2007; Graham, 2013) were excluded from the observation scheme for two reasons. Firstly, there is a long tradition of studies exploring the city public space (Lynch, 1960; Jacobs, 1961; de Certeau, 1984; Sennett, 1986; Gehl, 1987; Sorkin, 1992) and the role of time in public space (Lefebvre et al., 1996, 2004; Thomas and Bromley, 2000; Nelson et al., 2001; Bromley et al., 2003; Kärrholm, 2009; Kärrholm et al., 2015). The second reason concerns the reconceptualization of chronopolis, which is necessary for its application on the city-scale level. Virtual space represents a key condition to forming the chronopolis operating on the supra-national or global scale (Laguerre, 2003b, 2004b, 2007, 2010); however, it is just one of many possible spaces in the case of chronopolis emerging on the scale of the (European) city. In other words, the activities taking place in the public space are still important in the context of the compact city and its relatively short walking distances and dense network of public transport (Ďurček and Horňák, 2016). There were 18 selected localities within the public space of the City of Brno. Locations were selected randomly, based on general criteria. The locations had to be public without direct signs of surveillance. They had to be unroofed areas and it had to be possible to visually check the whole location from one place. The selection of particular localities was not crucial, not even in terms of size, structure, function, or their locations within the city. The selection of the localities was not intended as an exhaustive representation of the complex time-space of the city, but rather a reflection of the effort to cover the variability of the urban time-spaces. Despite this effort, there are certainly missing types of localities, such as large shopping malls, residential suburbs and gardening plots. The selection is not a representative sample of all types of localities within the city, and is instead a random set of localities collected in order to explore the temporal relations between them. The purpose of the sample is then closely related to the sample size. The amount of localities observed, 18, was not arbitrarily determined in advance, but itself represents a partial result of the analysis. The concept of theoretical saturation was used to determine it (Strauss and Corbin, 1999 p. 140; Charmaz, 2006, p. 113-115; Clarke, 2005, p. 108; Clarke et al., 2015, p. 226). The number of observed localities had been gradually increased until we were able to identify particular types of chronotopes based on the similarity of rhythmical profiles (chronopolis). When reaching the number of 18 localities, four types of rhythm profiles clearly appeared and observations were stopped. However, it is very likely that if other locations continued to be observed, it would be possible to identify more types of chronotopes (chronopolis). Since it was not the intention of the study to represent all the chronopoles in the City of Brno, but to represent the possibility of interconnection between particular places based on their rhythmic similarity, 18 localities were shown to be sufficient for this purpose. Of the 18 surveyed localities, nine were squares, four were crossroads with a transfer between different public transport lines, three streets, one railway station and one corridor exit. The scope and boundaries of the localities were not adjusted arbitrary in advance – their delimitation was carried out during the observation itself. The place-making role of spatial or morphological attributes (street line, wall, fence, road, rails, river, crossroad, etc.) was diminished in favour of temporal ones (movement, flow, process, etc.). The aim was to identify as closed a system of flows, rhythms and processes as possible within an area and observe it in actuality. In other words, the boundaries of the locality stem from the observation. They do not represent the delimitation of place in the spatial sense, but they enclose the defined time-space, delimited in a spatio-temporal way. The spatio-temporal way of delimitation does not aim to create particular time-spaces as mutually separated entities (Subrahmanyam, 1997); the aim is to grasp them methodically in connection with other (spatially) separated (Osman et al., 2016) but (temporally) synchronized time-spaces (see Fig. 2).

As for the temporal aspects of delimitation, we confined them to the public time on the scale of the working day within the civil week. We abstracted from virtual time (Laguerre, 2004b, 2005; Crang et al., 2007) and religious time (Laguerre, 2003a, 2003b, 2007, 2010) as well as from the time scaled by months, seasons or years (Jauhiainen and Mönkkönen, 2005; Palang et al., 2007; Symonds et al., 2015; Kraft and Havlíková, 2016). There is again a rather methodological reason for such a limitation. In order to achieve the aim of the paper and answer the research questions, there is neither the need to study one or two localities for a long-time period, nor the need to depict changes in the locality over the course of a month, season or year. On the contrary, the research questions assume a relatively detailed temporal description of a large number of diverse localities. From this standpoint, the temporal scale of the working day provides an ideal compromise between a sufficient number of observed localities on one side and manageable detail of their observation on the other. All localities were observed for extended periods of at least 24 h in each case. This observation, however, was not conducted all at once, but over the course of two months, and more specifically in April and May 2015. The spring season was chosen due to a certain normality or ordinariness in the outer conditions. It is the season without winter frost and summer heat, there are neither Christmas nor summer holidays, it is the midpoint of the school and university semester, a season without any major singularities. In this respect, the selection of the months of observation followed an effort to choose the most secular parts of the year, to eliminate the influence of the Christian calendar and to focus on a description of the working day rhythm. The observations thus were not conducted over a single day, but on different days and at different times. Fridays, Saturdays and Sundays were excluded from the observations so as to concentrate on the rhythm of the working day. This decision was

[1] The city of Brno has a population of about 350,000 inhabitants, while being used by over 500,000 citizens for their daily activities on weekdays and during university terms. Brno has a long industrial history and, as in most cities in post-socialist space, signs of both post-industrialism and post-socialism mingle here. Even today, scars of World War II remain visible, both material (the bombings) and social (especially after the expulsion of Jews and subsequently Germans). Some temporal traditions of the Austro-Hungarian Empire are still institutionally maintained as well.

Fig. 2. Spatial distribution of the surveyed localities in Brno. 1 and 2 Chronotopes = Work Cycle Chronopolis; 3 and 4 Chronotopes = Return Chronopolis; 5–8 Chronotopes = Hot-Spot Chronopolis; 9–12 Chronotopes = Centre Chronopolis.

derived from the aim of the project - to capture the urban everyday life organized by the workweek in Brno. The observation was carried out only for the active part of the working day, specifically from 6.00 am to 10.00 pm. There are two contexts justifying this temporal limitation. Firstly, there is a difference in public transport operation between daytime and night-time. While the intensity of public transport services is high (a dense network and a high frequency of links in operation) during the daytime (6.00–22.00), only a few selected routes are operated at one-hour intervals during the night-time. Secondly, the opening hours of shops are strongly concentrated within this period (Mulíček and Osman, 2013). The empirical analysis was thus embedded into the spatio-temporal frame of 18 localities in Brno observed during the active part of the working day of the civil week in spring 2015. Semi-structured observation was selected as the basic method of data collection. By semi-structured observation we mean observation with a flexible or loosely defined structure enabling the researchers to react freely to any observed process or event in the locality (Spradley, 1980; Lofland and Lofland, 1995; May, 2002).

Empirically, only human users of the locality were observed and counted. Goods, animals, vehicles, other non-humans and even people in the vehicles were excluded from the count. The reason was the different behaviour and thus different rhythmicity of these actors. Rhythmicity of non-humans is, of course, a perfectly legitimate direction for the study of city time-spaces, and the presented re-conceptualisation of chronopolis to the scale of the city does not limit this in any way. The deliberate limiting of the project solely to human rhythmicity only reverts back to the original concept of global-scale chronopolis, in which the humans are considered the principal carriers of specific time cultures (Laguerre, 2003a, 2003b, 2007, 2010). The only exception to this rule were taxi drivers, whose presence, even though they often sat inside a car, greatly influenced the situation of non-motorized users of the locality. Skaters, cyclists, motorcyclists were counted only when they had appeared off the motor vehicle roads.

A preliminary set of key themes was prepared prior to the observation itself. The themes were as follows: What is the physical appearance of locality users? How fast do people move in the locality? How straightforwardly do people move within the locality? Does any direction of movement dominate? Do they move individually, in pairs or in groups? Are they staying, or just passing through the locality? For how long do they stay? What activities do they pursue here? Field notes from this part of the observation were taken. On average, there were 10 A4 pages from each locality. At the same time, the number of present users of the locality was counted. Every person present at a given moment was considered a present user. The present users were counted every 15 min between these hours. Determining the count frequency again represented a difficult methodological decision. In the end, a purely pragmatic reason prevailed – the feasibility of counting with only a single observer. Since the set of observed localities comprised those where the present users could not be counted in a period shorter than 10 min, the 15-min interval became the shortest interval in which it was still possible for a sole observer to count. The numbers of locality users present during the day are shown in the graph which displays two values: the 15-min absolute number of users and the hourly average number of users. While the data structured in 15-min intervals shows the hourly rhythm of the location, the data structured in 60-min intervals shows the daily rhythm of the locations. A single graph thus allows for the observation of two different scale level rhythmicities of the same locality.

The analytical sequence comprises five steps in which a narrative analysis of time alternates with a graphic analysis of space (Fig. 1). In the first step, the localities were observed prior to their delimitation. Attention was paid to movements, flows and processes visible in the space; the observers captured a story of the locality which was narrated through the presence of users. Consequently, as the second step, the particular localities were spatially delimited following the semi-closeness of the observed processes. In the third step, the number of users present in the locality were summed every 15 min. The frequency curves visualizing the numbers of users during the daytime represent certain daily rhythms; it tells us a partial story of each of the 18observed localities. Comparative analysis was employed at the fourth step to confront the rhythm profile of the localities, i.e. to compare the observed rhythms of the present users. The similarities among particular frequency curves was taken as a point of departure for the identification of specific types of analogically rhythmized places, i.e. distinct sets of chronotopes representing distinct chronopoles. Only data on the number of users present in the locality was used to identify analogically rhythmized sites in this step. Other data inputs captured by semi-structured observations did not affect the identification. The rhythmic profile of the localities or, more precisely, the shape of the curve of the changing number of users present during the day became the only criterion attributing individual chronotopes to chronopolis types. Fifth, the stories of all identified chronopoles were narrated. At this stage, other data from semi-structured observations was employed as well. In the descriptions of individual locations attributed to the

same types of chronopoles, similarities were sought that could explain their analogous rhythmicity. These were subsequently used for a narrative description of the daily story of each chronopolis type. Particular chronopoles were then ordered chronologically by the times their localities recorded a peak number of users. This chronological set of stories was finally employed to present the storyline of the city as a whole.

6. Selected chronopoles on the city-scale level

6.1. Work cycle chronopolis

The first defined type is the work cycle chronopolis. It comprises two localities (chronotopes). One is a square, the other is a street. However, this designation is rather confusing in both cases. The square does not function as a place of meeting and has no accumulation of services, shops and restaurants; the square is more of a crossing of several streets. One of the city's traffic arteries combining individual car and tram transport passes through the square and there is a tram stop directly on the locality. The other locality is described as a "street", however a "transfer node" would be much more fitting. What is it then these two localities have in common? They are not very busy for most of the day. They are among the localities located farther from the city centre. No important institutions are located directly on them, nor in their immediate vicinity. There is not even a significant aggregation of services. However, main roads pass through them and both are serviced by core lines of public transport. Work cycle localities thus do not serve as target locations for their users, do not concentrate activities, do not produce their own rhythms. On the contrary, they are almost exclusively areas of transport, their users walk or drive through them, or just use them as transfer points. These localities thus become a spatial stage set, where a combination of rhythms of other localities or eventually trans-local rhythms can be observed. This example clearly shows that the location cannot be considered non-rhythmized or, more precisely, a locality with no specific rhythm. If there is no pacemaker present at a given locality, if the locality itself does not set any rhythm, then it receives external, wider, trans-local, city-wide rhythms and repeats – (re)produces – them. The work cycle chronopolis thus can be considered an echo of a kind. Locations of this type are not the targets of activities, they reverberate the rhythms of other, distant targets of residence, work and school. Locations frequently manifest this echo in the form of arrival/disembarking, waiting, and departure/boarding, and do so especially during the peak hours of 7:00 a.m. and 9:00 a.m. and between 2.00 p.m. and 5.00 p.m. The work cycle chronopolis thus can be characterized by a rapid fluctuation in the number of present users, caused by the presence of public transport stops, and a significant difference between the number of users inside and outside of rush hours (see Fig. 3).

6.2. Return chronopolis

The return chronopolis is described here using two example locations. One is a square, the other is a street intersection functioning as a transfer point. The square is located right in the middle of one of the largest housing estates in Brno, occluded by a "shopping centre" providing various services, the main attraction being a grocery supermarket. At the same time, it is a location quite far from the city centre (approximately 25 min by public transport). The other locality represents a very diverse area dominated by passenger car traffic. Simultaneously, the locality serves a number of other functions – yet again, there is a grocery supermarket, a multifunctional municipal hall (ice hockey, concerts, etc.), a busy transport hub, and the residential function of the locality is also present. This locality is, however, in close vicinity to the historic centre (approximately 5 min by public transport). What they have in common is that a number of essential functions are present or in close proximity, and they are directly embedded in housing areas of the city. As in the previous case, the localities are dominated by traffic, and specifically by public transport. This is apparent in the morning but particularly during the afternoon rush hour. hile the afternoon rush hour overshadows the rest of the day, the morning peak is barely recognisable. While in the morning rush hour people move individually, quickly, and following direct routes, they are much slower in the afternoons, stopping, waiting, meeting others, talking, and there are a larger number of couples and larger groups. The localities are used purely for the purpose of transportation during morning rush hours; however, people use the locality for shopping, withdrawing money, discussing, etc. during afternoon rush hours. On one hand, the morning rush hour is harder to capture, while on the other hand, it is demonstrably smaller. We could speculate that people take more time to commute to work (a longer time period), that they use different localities on their morning routes (for the shortest time), or that they use other means of transport (they go by car in the morning). Nevertheless, whatever the reason, it is clear that people spend far less time on the localities during the morning peaks than in the afternoon peaks. In contrast to the previous chronopolis type, these localities are equipped with grocery supermarkets, which have become a frequent destination for locality users, especially in the afternoon hours. In terms of time, it is convenient for most of the population living in Brno housing estates to go shopping on their way back from work. For this strategy to pay off, the locality must be equipped with a large number of lines with a high departure frequency, which is true of both localities as can also be observed in the extreme fluctuation of the 15-min interval user counts (see Fig. 4). The return chronopolis can thus be characterized by a significant preponderance of afternoon activities over morning activities and by a fluctuation in the number of present users due to the presence of public transport stops.

6.3. Hot-spot chronopolis

The hot-spot chronopolis comprises two squares adjacent the historic centre of the city; one centre of a neighbourhood on the outskirts of the city, equipped with a tram terminus; and one bus station serviced by international carriers. Their common feature is a comparable number of users present in them throughout the daytime. Their presence has a slightly different cause in each location, but in all cases there is an alternation of users. The hot-spot locations are not populated with the same users throughout the day, but they gradually mingle, transfuse and even alternate. On one of the squares, this flow is ensured by a higher number of major institutions with varying rhythmicities. There is a court, a cinema, an art gallery, a market and a number of small shops and cafés. The locality is located on the edge of the historic centre offering excellent accessibility and it can be both the destination of a journey or a journey in and of itself. In other words, a variety of people keep turning up during the day pursuing different objectives and using various services. The second square has a similar disposition. It is also located on the very edge of the historic centre, featuring a theatre, a municipality hall, an art house, several banks as well as a number of smaller shops. In this case, however, the transport function is dominant as well. Several tram lines cross here, but they do not eclipse the locality. They awaken the location more quickly in the morning, but without emphasizing the work day cycle. An essential peculiarity of the square is its location on the border of the largest excluded area in the city, which shows all the signs of segregation –residential properties in poor condition, a high unemployment rate, and the presence of ethnic minorities, etc. Noticeably different social groups of users mix within the square, the rhythmicity of unemployment interestingly combines with the rhythmicity of work cycle, and the square maintains a high and relatively balanced number of users this way. What both squares have in common is the presence of an institution offering a range of evening activities (cinema, theatre). The presence of this type of institution thus prevents their depopulation in the late afternoon.

A third location exhibiting the characteristics of the hot-spot

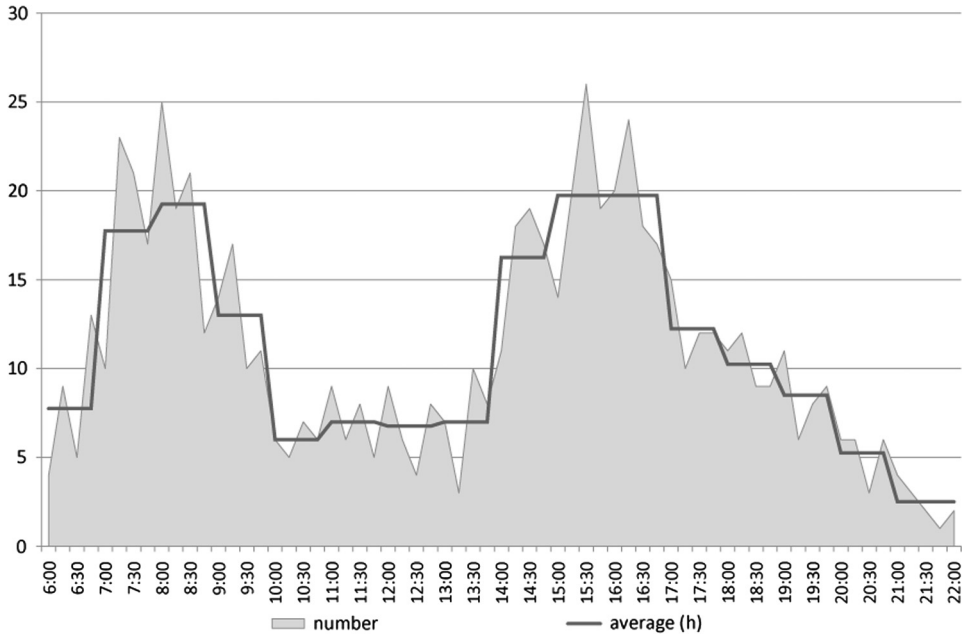

Fig. 3. Work cycle chronopolis – the example of Burianovo Square, Brno, Czech Republic.

chronopolis is the centre of a neighbourhood on the outskirts of the city equipped with a tram terminus. It mainly serves a transport function. People come here so they can go to the centre of the city and later return here to get home. The alternation of social or age groups of users again causes a continued presence of users throughout the day. This is because the tram terminus serves as a departure and arrival locality for the adjacent complex of college dormitories. Once again, the work day cycle (workers) mixes with a nonworking cycle (elderly, students).

The fourth and last location of the hot-spot chronopolis is represented by the bus station. Transport companies using the observed station are generally considered more expensive, more luxurious and for more upmarket-clientele focusing carriers. A considerable proportion of their clientele are thus foreign tourists. The observations show that their behaviour is markedly different from the behaviour of local users, and that they can be easily distinguished from observation. While local users leave immediately after their arrival, tourists remain in the area. They often switch their phones on, make phone calls, change their clothes, open luggage, look around, look for information signs, maps, inquire about directions, etc. They even questioned the observer every so often. At the same time, it is clear that tourists often come to the bus station relatively well in advance, while the locals rather tend to arrive at the last moment and are quite often seen running to catch their bus. There is, however, another, third, group of users who systematically focus on the wealthier tourists unfamiliar with the local context. These users remain at the locality even between the arrival and departure of buses. They most often stand around snack bars, drink, smoke, discuss, and address passers-by, etc. At least three different rhythms can be discerned in the area, which differ among the groups. The differences in behaviour of each of these three groups is then enough to reconcile the simple rhythmicity of the bus timetables and generate an even number of present locality users throughout the day. The hot-spot chronopolis can be characterized by a relatively even number of visitors present at the locality throughout the entire day time (see Fig. 5).

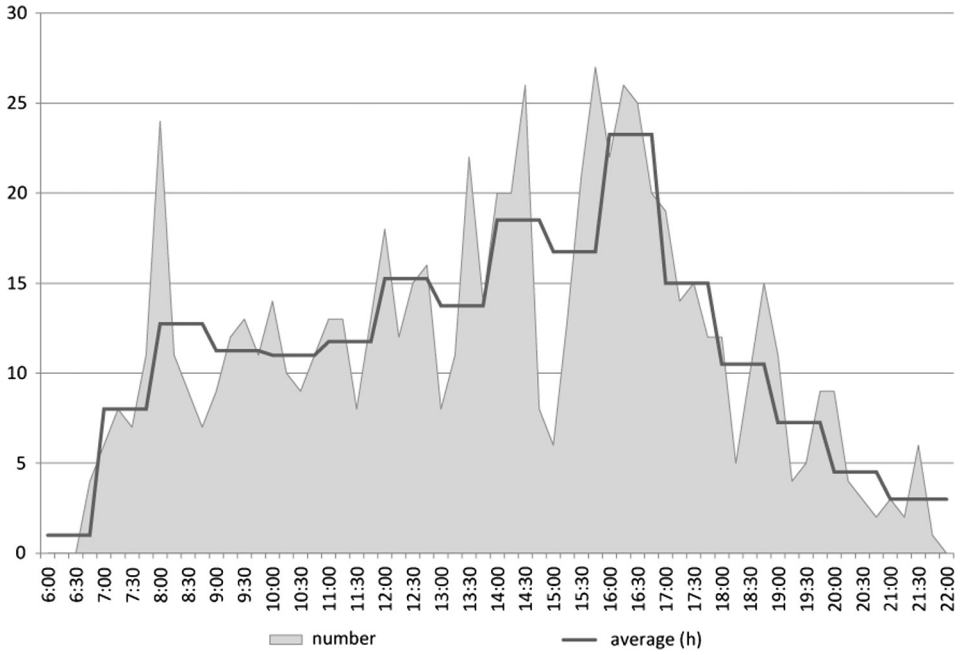

Fig. 4. Return chronopolis – the example of Pálavské Square, Brno, Czech Republic.

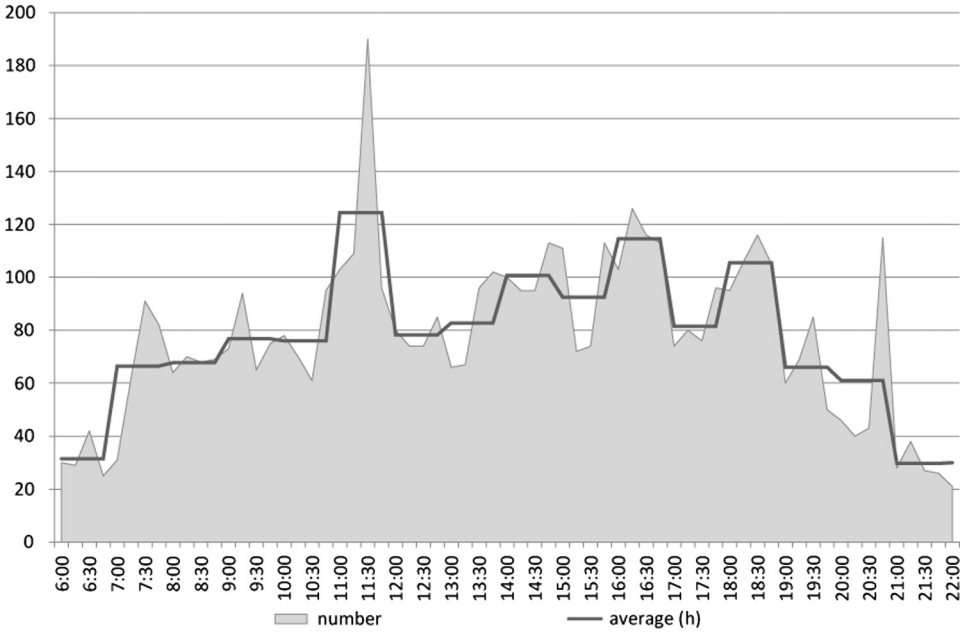

Fig. 5. Hot-spot chronopolis – on the example of Malinovského Square, Brno, Czech Republic.

6.4. Centre chronopolis

The centre chronopolis stems from observations in two squares, one street with a National Library and one corridor exit. The two main central squares of the city were chosen: one located in the very heart of the historic centre, where the most important public activities are taking place; the second is adjacent to the historic centre and is a vast expanse with grass in its centre serving as a park where people usually sit and/or lay down. Because of the overall size of the square, only a selected part with a local grocery market was observed. Both observed localities in the squares are crossed by tram lines, but neither of them is equipped with a tram stop. The third area is then formed by the street in front of the Moravian Land Library. The library is located outside the city centre (approximately 10 min by public transport) and is the second largest library in the Czech Republic, lending over 500,000 items per year. There is a sculpture of benches primarily used for meeting, reading, smoking, and consuming food and drinks; a stairway used by skateboarders for training; bicycle racks; and a telephone booth in front of the observed entrance. The fourth locality is the corridor exit. It is a certain section of an overhead street leading through two shopping centres and connecting the main railway and bus stations. It can be attributed several specific features. First, it is one of the busiest thoroughfares throughout the city; second, it goes through buildings, passes under the main railway station and again appears on the surface; and third, it concentrates its users into a very narrow corridor, where a separation into two lanes according to the direction of movement has been customarily maintained.

All these four localities (chronotopes), however, exhibit similar rhythmicity. All these localities comprise the target(s) of user flows or, as in the case of the fourth location, are in close proximity of a target. At the same time, they reach their maximum numbers of present users in the middle of the day, around noon. This mid-point is not identically timed for all the localities – some reach it earlier, perhaps as early as 11:00 a.m., while others at a later time, perhaps as late as 2:00 p.m. – but it is always close to the middle of the daylight hours. The number of users present in these locations does not grow higher or lower in large steps, but gradually (see Fig. 6). The targets, however, differ. In one square, it is mainly the local food market; in the other, it is a tourist attraction and a variety of daily events (concerts, shows, contests, tastings, exhibitions, etc.); in the third location, it is a library; and in the fourth, it is a combination of transport terminals and shopping centres. Public transport stops are either so far away that their rhythm is too weak to have influence, or the number of users present is so large that the role of public transport as a pacemaker becomes an indistinguishable oscillation. The number of users present is not as fluctuating as in other cases, and their daily distribution is approaching a normal distribution. The locations wake up gradually and gradually fall asleep; they are neither exposed to the morning traffic rush-hour, nor do they involve the institutions of evening activities. An interesting fact is that in the centre chronopolis, the number of users present follows the curve of the daytime temperature. It could therefore be the case that towards the summer months with its warmer nights, the distribution of users present could extend more significantly toward the evening part of the day. The chronopolis of the centre can thus be characterized by a more or less symmetrical distribution of users present throughout the daylight hours, by the maximum number around the middle of the daylight hours, and the absence of fluctuation in the 15-min interval counts of users present.

7. Conclusions

The presented text portrays the space-time of the city as a polyrhythmia within the meaning of Lefebvre's rhythmanalysis. Rhythmanalysis serves here as an initial philosophical framework allowing it to proceed to more detailed empirical analyses of individual urban locality rhythms through the concepts of polyrhythmia, chronotope and especially through the concept of chronopolis. The urban place is conceptualized as a space-time unit – we use the term chronotope. Chronopolis represents a supra-local time-space category incorporating analogically rhythmized chronotopes. Urban time-space is then understood as an ensemble of various types of chronopoles, which integrate the places of similar rhythmicity.

Individual locations are not rhythmized equally. Each location exhibits its own specific rhythmic character. It cannot simply be assumed that the rhythm is determined by the plain function of the locality, that e.g. all transfer points will exhibit a similar rhythm and therefore form a homogeneous transfer node chronopolis. On the contrary, based on the observations, it showed that the inductive approach to the locations, represented by relatively time-consuming observations, first allows for the uniqueness of each of the locations (chronotopes) to be captured, and subsequently for similarities to be found. The analysis proved that very different localities, varying in their functions, sizes or location within the city, can correspond to the same chronopolis. Contexts and causes may be different, but the rhythmicity of the locations is similar.

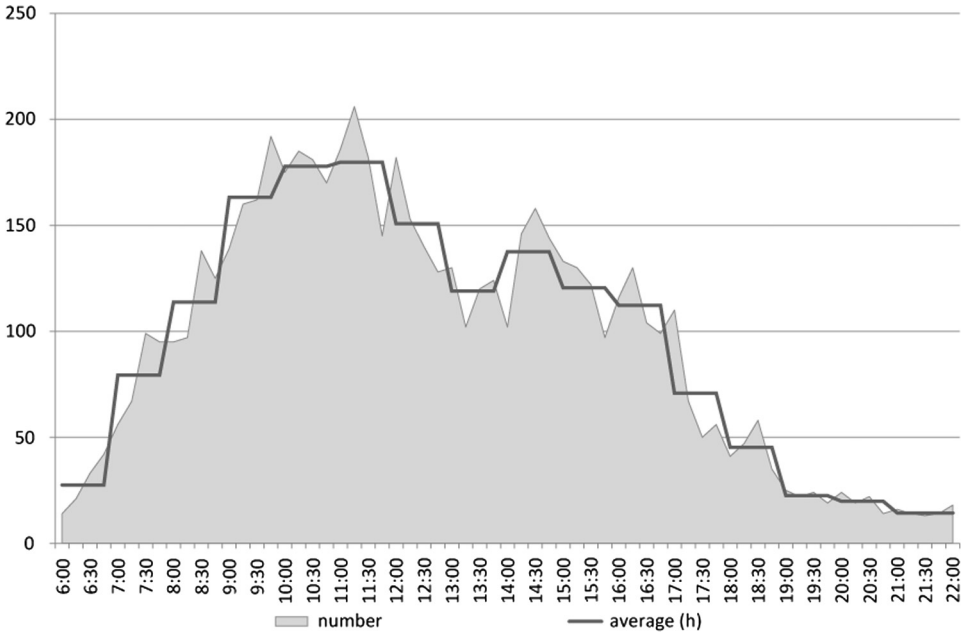

Fig. 6. Centre chronopolis – the example of a part of Moravské Square, Brno, Czech Republic.

The paper thus shows that designations such as street, junction, railway station, and square represent some sort of customary categories, which however express only the architectural (spatial) structure of the place at best. They definitely do not serve as categories that would express the character of the locality, its behaviour or its (temporal) story. Describing locations using the more general categories of chronotopes allows for the capture of their procedural, or rhythmic character.

The chronotopic approach thus allows us to consider individual locations as unique intersections of time and space. Some locations are therefore able to generate their own rhythms and create their own local times. Other locations become only a spatial stage set, a theatre where the rhythms of other localities or eventually trans-local rhythms manifest. And clearly, there are localities where local rhythms are combined in various ways with trans-local rhythms. Using this perspective then dramatically changes the approach to the rhythmicity of the city as a whole. The rhythm of the city in terms of localised chronotopes cannot comply with the idea of a single synchronized machine. Instead, it offers a model akin to a 'flashing Christmas tree' where various rhythms manifest only in specific locations while other rhythms manifest in different locations. This is due to the fact that some (spatially separated) locations switch on throughout the day (one chronopolis), while other (also spatially separated) locations switch off (a second chronopolis). The city thus beats at different times in different places. The description of the daily rhythm of the whole city is then bound to become too complicated. It is possible to resort to describing the entire territory of the city at a single moment or to describing the entire day in a single location. The method presented in this paper thus offers some kind of compromise – to describe the rhythm of the city as narratives of individual chronopoles (see Fig. 7). In other words, to start with a narrative about localities which are dominated by the earliest rhythm (in our case e.g. the work cycle chronopolis), continuing the tale of locations with distinct morning rhythmisation (the hot-spot chronopolis), follow with the stories of locations with significant midday activity (centre chronopolis), go back to the locations rhythmized by afternoon activities (work cycle chronopolis), supplement them with locations with maximum activity in the late afternoon (return chronopolis), and finish the narrative with a description of locations with a presence of evening rhythms (hot spot chronopolis).

The four identified chronopoles, however, do not constitute an exhaustive list of all possible chronopoles. Those are only the selected chronopoles we were able to identify based on the empirical material

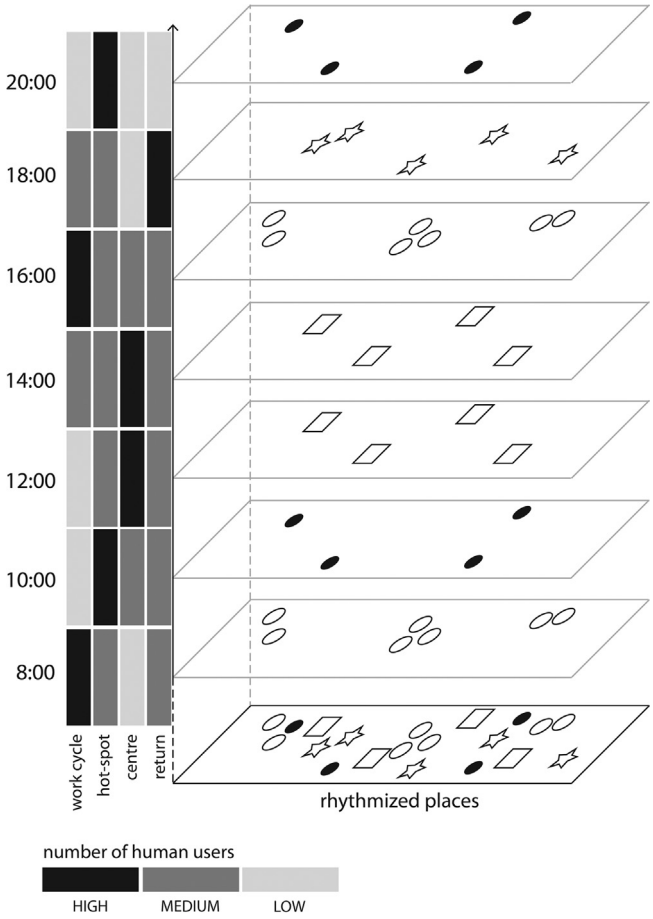

Fig. 7. Urban chronopoles – ensemble of rhythmized dislocated places.

we acquired. It is more than likely that when increasing the number and especially heterogeneity of observed localities, new chronopoles would start appearing. It is also likely that, based on new data, some of the formerly relatively homogeneous chronopoles would have to be divided into two distinct chronopoles and so on. The chosen approach, however, offers an example of a methodological and empirical way of using

chronopolis on the city-scale level, and shows a possible way to understand the diversity of an urban environment employing the temporality of individual localities. In the other words, the concept of a city's chronopolis has the potential to go beyond reductionist approaches to the city – reductionist in terms of viewing the city either only through its spatial structure or solely through its temporal pattern. Chronopolis prefers, conceptually, neither the description of temporal heterogeneity while neglecting the spatial variability of the city (one place), nor the description of spatial heterogeneity suppressing the notions on the variability of times (one time, one moment). As chronopolis does not prefer space over time and vice versa, it can be employed to cover temporal as well as spatial specificities of particular urban places from the spatio-temporal standpoint. Moreover, there is still a synthetizing effort to follow the relations and couplings between particular city time-spaces in order not to lose the city-scale spatio-temporal awareness while also respecting inter-city variability and differentiation. Urban chronopolis represents an opportunity for urban theory to approach the city in an integrated spatio-temporal way, pushing aside perhaps overly simplistic images depicting the city as one time, one place, one place in various times, various places at one time, or as various places at various times without any mutual relations.

Acknowledgements

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Urban Place as a Heterochronotopia: A Case Study of a Brno Locality*

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Abstract: This article is based on long-term study of the relationship between time and space. It does not conceive space as a dimensionless, empty, and homogeneous container but draws instead on the concept of place as unique and meaningful. The conceptualisation of place is thus based on the classic works of the humanist geographers Yi-Fu Tuan and Edward Relph, who consider place to be integral, enclosed, and determinable. The issue of the determinability of integral and still meaningful place is examined using Michel Foucault's concept of heterotopia. A certain place in a city is linked to a number of other places, which in a way then become present in that place. The place cannot be considered a homotopia but, on the contrary, is a heterotopia. Place can also be conceived from a temporal point of view. Various times (rhythms) blend in a place and they refer to processes that were taking place in other (even temporally very remote) times. Similarly, just as place can be spatially considered a heterotopia, temporally it may be considered a heterochronia. The term heterochronotopia is used to refer to a place that opens out both spatially to other places and temporally to other times. Empirically the article focuses on one selected place in the post-socialist and post-industrial city of Brno (Czech Republic). The article seeks to (1) identify links connecting the researched place to other sites and times and to (2) describe the selected place as a system of associations. The research combines a very wide range of methods such as direct observation, informal interviews, and analyses of historical documents, photos, public transport timetables, etc. The article thus offers an example of a dense description of a place as a temporally or spatially undeterminable entity, provides material for critical reflection on the assumption that urban place is enclosed and determinable, and introduces 'heterochronotopia' as a new concept referring to a spatially and temporally undetermined place in a contemporary city.

Keywords: place, heterotopia, heterochronia, heterochronotopia, Brno
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Introduction

This article is based on the traditions of social science research into the relationship between time and space. It aims, within this framework, to further discuss the concept of place,[1] which is one of the key geographic concepts. The notion of place in geography has under the influence of the humanistic geographic tradition been based for a relatively long time on four assumptions—apparent staticity, determinacy, existence of its centre, and semantic unity. This paper challenges the validity of these assumptions and proposes a different approach to the study of place; an approach that reflects the indeterminacy of place in time and space; an approach that can take into account the relational character of place, that is, its connectedness with other places and other times. Place is thus not an enclosed and self-contained unit; on the contrary, it acquires its meaning through other, often both temporally and spatially remote places.

As a broader theoretical framework for a critical discussion of place, the article draws on Foucault's concept of heterotopia. The concept offers the possibility of extending the notion of place to its spatial (heterotopic) and temporal (heterochronic) relations. The aim of the article is therefore to discuss a geographical conceptualisation of a heterochronotopic place. Heterochronotopia is not just another name for heterotopia or heterochronia. It is a concept with which it is possible to depict place through the set of mutually related places in various times. Numerous linkages and connections with other places allow us to see place as a kind of relation network. The network itself is however not the result; it represents just a means of identification of other interrelated places, which are called locations[2] further in the text. The ensemble of these locations, distant both in spatial and temporal terms, represents place in line with the heterochronotopic approach. The aim of the article is also to empirically apply the heterochronotopic approach to place; on the example of a specific urban place, the article shows the possibilities of a heterochronotopic description of place emphasising the inseparability of the time and the space relations of place.

The structure of the article also corresponds to its outlined focus and aim. Alongside the Introduction and Conclusion, the article contains four theoretical chapters that discuss in detail the theoretical background of the article, including a critique on the humanistic concepts of place, and introduce the geographic concept of heterochronotopia as a temporally and spatially unbound concept of place based on Foucault's discussions of heterotopia. The theoretical chapters are fol-

[1] Three terms—place, locality, and location—are employed in this article in order to make the conceptualisation of heterochronotopia semantically clear. They are not synonyms, as they are used in specific conceptual contexts. 'Place' is understood here as a generic term reflecting broader geographical theory and practice. The term covers various conceptualisations, heterochronotopia included.

[2] According to Foucault, locality consists of elements through which other remote sites and elements enter and co-define the locality. These remote sites and elements are called locations in the paper.

lowed by a methodology section, which presents the methodological principles of the empirical application of the concept of heterochronotopia to a geographic description of an urban place, in this case the particular locality[3] of Nové Sady in Brno, and its spatial definition. The empirical part of the article presents Nové Sady as an ensemble of other related locations; the otherness of the locations stems from their spatial or temporal distance. Such a description may be based on a number of both materialised and non-materialised and more or less obvious networks; however, because of the limited scope the approach used is necessarily selective. Here we characterise the locality as a heterochronotopia based on the ensemble of locations linked to the building that dominates the locality (see the section 'Heterochronotopia of the building'), on the ensemble of locations connected through particular transport modes present in the locality, and on the ensemble of locations that are connected via the waste going from or to the locality (see the section 'Heterochronotopia of waste').

Static, delimited, centred and meaningful place

Geography, as a discipline that defines basic spatial concepts, differentiates between the concepts of space and place, often setting them in opposition [Agnew 2005: 83]. The consolidation of the concept of place is associated with the establishment of humanistic geography and therefore with the thinking of humanist geographers, most notably Edward Relph [1976], Yi-Fu Tuan [1977] and David Seamon [1979]. They were particularly motivated by a critique of a 'dehumanised', 'disembodied', and 'observer-independent' concept of space. Opposing this conception of space, they constructed their own concept of place, based on the assumption that 'people do not live in space but inhabit places' [Casey 1993: ix]. While space is perceived as dominated and controlled within their approach, place is described as lived and experienced [Taylor 1999]; their aim is thus to transform the relatively abstract concept of space into a meaningful concept of place [Cresswell 2008b: 55]. Despite the fact that the humanistic conception of place was heavily criticised primarily from the positions of a new mobility paradigm, cultural geography, or radical approaches (see the discussion below), its basic assumptions still play an important role in place conceptualisation within the social sciences that address spatial issues. Classic works of humanistic geographers thus represent not only an original source of these assumptions but, at the same time, useful material for their deeper analysis. Respecting that, our discussion of the hetrochronotopic concept of place has to start with the thoughts of Edward Relph and Yi-Fu Tuan.

[3] The term 'locality' is much more specific and refers to a particular situated and observable site under study. It represents a rather technical description of Nové Sady in terms of a field survey.

We can thus consider at least four humanist assumptions of place, which are still prevalent in contemporary social science debates about spatial phenomena, and which complicate the comprehension of current spatial processes. Doreen Massey talks about (i) the seeming staticity of place, (ii) the determinacy of place, (iii) the existence of a centre/core of place, and (iv) the semantic unity of place [Massey 1993]. Let us first concentrate on the issue of (i) staticity of place. Tuan literally speaks about place as pause, when he writes:

> Furthermore, if we think of space as that which allows movement, then place is pause; each pause in movement makes it possible for location to be transformed into place. [Tuan 1977: 6]

Tuan in this context considers place something that provides stability and security and thus sets it in opposition to space, which in turn offers openness, freedom, movement, and therefore also the risk of exposure. This fully suits the sedentarist way of viewing the world, in which place is seen as the epitome of rootedness, spatial order, and belonging [Cresswell 2006: 26]. Massey very clearly shows how the approach of humanistic geographers depends on Heidegger's thought, especially on his *Being and Time*, adopting its dichotomy of being and becoming and reproducing it in the dichotomy of static place and becoming time. A humanistic geographic place is therefore like a pause, stopped in time, static, and non-processual, and thus repeating the division of the integral experience of space-time into analytical categories of space and time [Massey 1993: 66]. As stopped in time and thus timeless, it however makes it possible to capture spatial continuity[Agnew 2005: 83]. Place is thus not only temporally static, but also spatially continuous; it is a specific moment, a moment of a concrete continuous space [Henderson 2009: 540]. Mimi Sheller and John Urry from the perspective of a new mobility paradigm refuse the fixity and stability of place in the current highly mobile world and emphasise its hybrid essence. Places are, according to them, produced and reproduced by 'unstable and ever changing' relations between 'materialities and mobilities' combining local and also distinct objects, technologies, and socialities [Sheller and Urry 2006: 214; Sheller and Urry 2016: 12, 13].

The second assumption is (ii) the determinacy of place. Relph also refers to Heidegger, when he emphasises the need for human existence to have bounds.

> The philosopher Martin Heidegger [1958: 19] declared that 'place' places man in such a way that it reveals the external bounds of his existence and at the same time the depths of his freedom and reality. [Relph 1976: 1]

Relph sees place as a specific spatial unit, not too different from other concepts such as street, city, or region. As a tool for the critique of the homogeneous concept of space, place is conceived as an area with certain common characteristics [Hender-

son 2009: 539], thereby forming discrete spatial units, defined by a boundary that determines what is still sufficiently common and is consequently 'inside' place, and what is insufficiently common and thus lies 'outside' it [Seamon and Sowers 2008: 45]. Place is thus defined both through its internal 'similarity' and through its outer links with other places [Relph 1976: 3]. Relph also places great emphasis on the experience of 'being inside' [Relph 1976: 49], emphasises the concept of insideness, analyses the degree of human inclusion into or adherence to a particular place, connects the identity of place with a human identity, or rather connects the concept of place with the concept of subjectivity [Gregory 1994: 391; Seamon and Sowers 2008: 45; Butler 2013: 52; Butler 2014: 209–210]. Massey comments on this need to define and delimit by saying that the use of 'boundaries' can be beneficial for certain types of studies, but it is definitely not necessary for the conceptualisation of place itself [Massey 1993: 67]. That is, again, related to the third assumption, deducing that if place delimits an area with similar characteristics and separates the 'inside' from the 'outside', then place (iii) becomes the centre of the surrounding area. Places are 'significant centres of our immediate experiences of the world'. [Relph 1976: 141]

Relph considers places as certain unique centres of space, which are enclosed, self-contained, and self-sufficient. Besides dichotomies of time and space, and inside and outside, this concept also reproduces the dichotomy of centre and periphery. While the centre can be seen as the center of sense in terms of linking the real and imaginary place of greatest familiarity (home), the periphery is the expanse of the unknown [Gibas 2014: 237]. A number of authors contradict this assumption about place. Doreen Massey speaks about a 'global sense of place' [Massey 1993], Kevin Hetherington talks about 'an "ordering process" of diffuse but connected placings' [Hetherington 1997], Tim Cresswell speaks about a 'product of multiple mobilities intersecting' [Cresswell 2008b: 57], George Henderson writes 'a network of potentially far flung sites are enrolled into relationship with each other' [Henderson 2009: 541], and Derek Gregory speaks about 'a complex, dynamic and uneven web' [Gregory 2009: 113].

Criticism of both assumptions about the determinacy and centrality of place from the perspective of the new mobility paradigm can be supplemented by the thesis that places made and remade by fluid relations with other, distinct places, become progressively more and more constituent parts of the outside, and as a consequence their central and bounded character is weakening [Cresswell 2008a: 137]. Places can, therefore, be viewed as a kind of assemblage in which the things that constitute a particular place are often held apart. The erosion, or even dissipation, of place boundaries is caused by many different deterritorialising forces, such as the flow of capital, forms of transport and communication technologies, and the availability of mobile devices that enable a routine escape into cyberspace etc. [Cresswell 2011: 240, 241].

All of the authors mentioned above share criticism of place as a centre; place is not an intersection or network, but a network is needed for locating scattered

place. And it is to this that the last assumption about (iv) the semantic unity of place is related.

> … there is something distinctive about idea of place, for in this meaning place appears to possess some 'perceptual unity' that is given to it by our experiences with unique and real places. [Relph 1976: 4]

A sense of place is key not only to humanistic geography. According to Relph, 'sense' is an essential defining characteristic of place, and according to Tuan, place is constituted as a gathering of 'sense' [Tuan 1977: 54]. Criticisim of this assumption then does not contradict sense itself but rather the unity of the sense of place, that is, the assumption that place has some sort of a single uniform and common sense, and that if it does not, then this is a mistake and such a common sense needs to be found [Norberg-Schulz 1969: 226]. This persistent 'sameness' then makes it possible to distinguish one place from another [Relph 1976: 45]. Doreen Massey contradicts this semantic homogeneity of place by saying that places do not have one single, common sense, and that rather places are also semantically differentiated [Massey 1993: 67]. Mike Davis shows how places can be internally conflicted, and, what is more, they can also be defined by conflict [Davis 1985]. Places thus do not have to have a clear identity but, on the contrary, their identity of sense can be more layered, fragmented, and contradictory. Such places are typically transport places, such as airports, which can be defined by the multilayering of distinct or even conflicting meanings and views that are valid for residents, airline industry actors, and governmental bodies acting on local, regional, national, international, and global scales [Kesselring 2009; Faburel and Levy 2009]. Moreover, Tim Cresswell distinguishes between the personal meaning of place based on a person's own experiences and its mediated senses spread via various media (internet, films, TV, novels, etc.). Places are, therefore, also representational and their alternative meanings can be shared differently among particular groups [Cresswell 2011: 236, 239]. The same place can also possess different names and be known differently in specific worlds of ethnic and linguistic groups residing in the same city, as is illustratively shown in the case of colonial Singapore [Wong 2006].

These four assumptions of (i) the seeming staticity of place, (ii) the determinacy of place, (iii) the existence of a centre/core of place, and (iv) the semantic unity of place will serve us as material for a critical exploration of an alternative concept of place [Lefebvre 2009: 186] capable of overcoming the repetition of these dichotomies, allowing us to analytically conceive time and space together. Foucault's concept of heterotopia/heterochronia appears to be suitable for this purpose.

Heterotopia

The term heterotopia has been frequently used in the language of the contemporary disciplines of space since the 1990s [Saldanha 2008]. Heterotopia, presented by Michel Foucault back in 1967 in his lecture 'Of Other Spaces' (Des espaces autres), is, however, not a theoretically anchored concept with predetermined areas of analysis. It is rather an intellectual framework that 'only'suggests a possible way of looking at place and space; its aim is rather a description of the next development stage of society, a search for the meaning of what comes after modernism.

While mediaeval society lived in a hierarchical and stable system of places, according to Foucault, contemporary society produces and adopts a dynamic space of relations. In opposition to the fixed localisation of mediaeval society, Foucault [1996] here presents the concept of emplacement, or, better, the ongoing emplacement of places in heterogeneous networks existing both in space and in time. The concept of emplacement thus represents a space of relations between points, elements that are simultaneous, placed side by side, close and distant, sorted and scattered [Foucault 1996: 71]. If place represents the relations between these points and elements, then the proposition that we live in an emplacement means that we live inside a set of relations. The term emplacement thus corresponds to the concept of space described by Foucault as an assemblage of relations [Foucault 1996: 75] and also allows for delimitation towards prior homogenising concepts, as he says that individual placements are reciprocally irreducible and irreplaceable [Foucault 1996: 75].

Foucault, however, does not address in detail all emplacements, or emplacements in general, but focuses only on such emplacements that have relation to all other locations, specifically a relation that reverts their original sense [Elden 2009: 330]. He talks about two separate types of emplacements—of 'utopias' and 'heterotopias'. Although both kinds of emplacements are scientifically inspiring, for the purposes of this article it is primarily heterotopia that has certain geographic potential. In heterotopias, real emplacements (all other places) are simultaneously represented, contradicted, and reverted [Foucault 2003: 76], they are therefore 'countersites' of sorts or 'other places' associated in an ambivalent relationship with places dominantly produced and adopted by the majority society, that is, places of the cultural mainstream [Saldanha 2008: 2081; Johnson 2013]. Foucault goes even further, arguing that heterotopia refers to the situation where a large number of fragments of various systems are reflected in a single location in such a way that they do not establish any common unity, coherence, or new identity [Cenzatti 2008: 75].

Since the main source for interpreting Foucault's concept of heterotopia is a single text, and that only in the form of notes prepared for a lecture given in 1967, there is not much material for a deeper understanding of Foucault's concept of heterotopia. The result is frequent criticism of the concept or multiple and vari-

ously conceived discussions, interpretations, and explanations of the concept. Critics include Edward Soja, who refers to the definition of the concept as inadequate and incoherent, because, on closer inspection, heterotopia can acquire several often mutually hardly compatible meanings [Soja in Johnson 2013: 792].

Heterochronia

In the introduction to his paper 'Of Other Spaces', Michel Foucault says: 'that current anxiety is fundamentally concerned with space, much more on than with time: the latter, probably, merely appears to us as one of the many possible patterns of distribution between elements that are scattered over space' [Foucault 1996: 73], privileging thus to a certain extent the spatial dimension of the concept of heterotopia. In another brief remark on his account of time, Foucault [1996: 81] states that 'heterotopia begins to function fully when you find yourself in a certain absolute rupture with the traditional time'. And he uses the term heterochronia to describe a symmetric defining relation between place-heterotopia and a specific time.

The full scale of phenomena that can be defined as heterchronia is, however, still unclear:

- Is heterochronia the specific manner of spatialisation, or, better put, the accumulation of time in a place (museum collections, materialised memory of a place)?

  There are a considerable number of articles discussing the accumulation or materialisation of specific historical events, epochs, and time periods in a single place in the form of statues, sculptures, exhibitions, and museums [Kuhn 2004; Ssorin-Chaikov 2006, 2013; Aydemir 2008]. In the time scale of everyday life, eternity often coincides with long-term permanence and as such it is usually associated with certain elements of physical space, such as historic buildings or street lines. The more transient temporality of human lives, activities, and movements in space then creates the impression that those permanent structures link a particular place with other, past times and events, as well as other elements and structures that may link the place with future times [Ssorin-Chaikov 2006]. The experience of a particular place is then also co-created by the capabilities of selected local structures to associate a different temporality, the spirit of the past/future [Marcelli 2015: 149].
- Is it the temporality of a place (marketplace, holiday village)?

  The temporality of the day thus contrasts with the certain sacredness of the night in which places that do not respect quiet hours (night clubs, convenience stores, gas stations, etc.) stand out as heterochronias of a kind. The working part of the week alternates with rest days, and their rhythm highlights heterochronias in the form of operating businesses, such as stores with weekend opening hours or 24/7 businesses [Mulíček, Osman and Seidenglanz 2015].

- Is it the specific rhythm or temporal regime of a place (monastery, sanatorium)?

  Sosna [2015] sees the essence of heterochronia in the coexistence of a larger number of locally overlapping time regimes. On the example of a landfill, Sosna documents three time regimes: (1) an institutional regime, given by the intended operating life of the landfill and the planned phasing of its filling; (2) a regime of timelessness, resulting from the nature of the landfill as a place that will be for an extremely long period of time only and nothing but a landfill, storing objects and materials with a decay time of thousands of years; and (3) a cyclic regime, produced by the daily rhythms of the arrivals and departures of mixed-waste wagons or by periodic fluctuations in the amount of waste taken in depending on the season. Heterochronia conceived in this way is strikingly similar to Bakhtin's chronotope, that is, a locality with a specific combination of rhythms [Mulíček, Osman and Seidenglanz 2015]. If we shift the debate to the urban environment, a number of chronotopes with a rhythmic profile can be tracked that are exempt from the universal synchronisation of the contemporary city through time [Marcelli 2015: 166]. They are therefore heterochronias, places of discord with the usual, linearly conceived temporality and dominant synchronising rhythms [Bal 2011].

In any case, heterochronia refers to the combination of various times in a single place. We understand heterochronia as qualitative shifts of time in a single place, as the local fusing of different rhythms, as spatially fixed combinations of times from different periods, or as any other example of different temporalities co-existing, fusing, or interfering in a given place.

Heterochronotopia

The aim of our paper is to use Foucault's reflections on heterotopia and heterochronia, or specifically his more general considerations about a differentiated sense of place, to devise a geographic conceptualisation of place as heterochronotopia. The term heterochronotopia is not new; it has, however, so far been employed as a conceptual tool for analysing art exhibitions, installations, or cinematic montages [Bal 2008]. Foucault himself defines six principles which he refers to as the principles of heterotopic emplacement; however, in his approach they are heterochronic principles as well. In other words, some of his principles refer to a more heterotopic and others to a more heterochronic sense of emplacement. In this text, however, we focus only on those principles that refer both to the characteristics of social space [Lefebvre 1991; de Certeau 1984] and to the characteristics of the network concept of space [Swyngedouw 1999; Swyngedouw and Swyngedouw 2004; Farías and Bender 2010; Gandy 2014]. There are four principles important for geographic application: (1) heterotopias involve relations to other places, (2) heterotopias transform in time, (3) heterotopias can emplace side by

side mutually contradictory places, (4) heterotopias interconnect different times in a single place. The fifth[4] and sixth[5] principles are not taken into account for the purpose of geographic conceptualisation here as they do not directly develop the imagination of a relational or network approach to space.

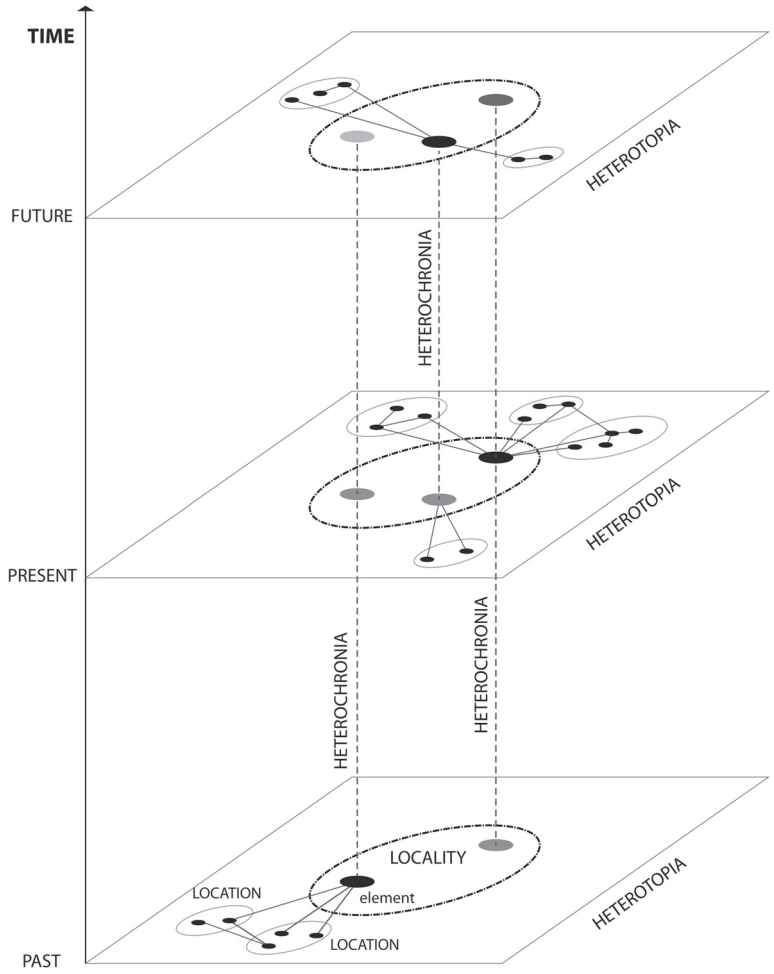
According to Foucault, heterotopias are places that acquire relations with other places, while the nature of these relations can, among other things, have the character of a description, a mirror, or a reflection. This highlights the relational character of heterotopias, which resonates with conceiving place as a decentralised, non-restricted entity connected with remote locations. The connection may be of various natures, from fixed infrastructure connections to information flows and other intangible links to connections purely symbolic or even imaginary [Heyns 2008]. The relational character of a heterotopia allows us to conceive place as spatially non-restricted and use this argument of Foucault's in the geographic conceptualisation of an alternative approach to place (the first attribute of a heterochronotopia).

However, the character, form, and intensity of the relations that connect a place-heterotopia with other places are not changeless. In the second principle Foucault refers to heterotopias as temporary entities whose position may evolve in linearly flowing historical time. One and the same heterotopic place thus may acquire other functions and other locations in the network of relationships—not because the place itself transforms, but because the external environment changes, the matrix of the relational network is rearranged. The permanence of the physical structure of a place thus can be contrasted with the often significant changes of its function in time. The second principle commented on here puts emplacement into the context of unidirectionally flowing time, within which its position and the characteristic relations change (the second attribute of a heterochronotopia).

[4] Foucault, in his fifth principle, describes heterotopias as places which are open and closed at the same time. A heterotopia is not a freely accessible place, according to Foucault; its accessibility is somehow restricted or, conversely, enforced. If we explore empirically an urban place that can be physically entered only in its present form, it is open just in the present time. We can have only mediated access to the history of a place through documents, archives, maps, and photographs; an unmediated experience is not possible. Despite the fact that a heterochronotopia conceptualises place across time, we are not able to enter it in any other time than the present. Similarly, we can derive the future of a place from plans, visions, and strategies, but the direct experience is denied to us. The place in its future, as well as in its history, is closed.

[5] Foucault's sixth principle refers to a certain role that heterotopias impose on the remaining space. The function oscillates between two extreme poles of illusion and compensation. It concerns a specific social or symbolic meaning of place that permeates all other places. Each place involves certain utopic illusions about geometry, aesthetics, hygiene, and safety of space, as well as certain compensations in the form of the breaking of norms (misparking, dumping, public excretion, etc.).

Figure 1. Heterochronotopia



In his third principle, Foucault talks about heterotopias that may juxtapose locations that are mutually incompatible, and that can enrich each other with deep and (seemingly) externally introduced senses. Thanks to this, place acquires different senses from the various other 'heres' and 'nows'. Contrary to humanist thinking, place thus does not have and even cannot have one single and common sense; instead its sense is heterotopically and multiply layered. This principle of Foucault's allows us to approach place as semantically ambiguous or even contradictory (the third attribute of a heterochronotopia).

In the fourth principle, Foucault speaks about heterotopias that form certain time sections, which means they are open to time from various periods or time with different meanings. This heterochronic aspect of heterotopias indicates both the ability to 'enclose all times, all eras, forms, and styles ... almost perpetual and unlimited accumulation within an irremovable place' [Foucault 1996: 82] and the fact that the experience of place, its materiality and temporality, can also be created by other, spatially remote locations, from which their time or rhythm is transmitted [Schwanen 2007]. Place thus ceases to be a pause and loses the assumption of temporal staticity. Foucault's fourth principle allows us to conceive place not through a single time, but through a number of different times (the fourth attribute of a heterochronotopia).

Heterotopia, complemented by a heterochronic aspect, is used in this article as the starting point for a critical reflection on the concept of urban place. Place is not a closed and self-contained unit because it obtains its significance through other, often spatially remote locations; it is shaped by other places, which demonstrate their 'absent presence' in many ways. Place, however, is unenclosed not only in space but also in time. Different times (eras) and rhythms coexisting in a particular urban place refer to processes that take place in other, often spatially remote locations and temporally remote times. An urban place thus cannot be perceived as a locality that remains in relation to all other locations. It can, however, be conceptualised as a locality that has connections only to certain locations. The geographic focus then is not on the relations themselves, but on the ensemble of locations linked to the locality under study.

We understand heterochronotopia as a specific geographic application of Foucault's heterotopia. The geographic conceptualisation of heterotopia assumes that place can be regarded as an ensemble of spatially and temporally discontinuous locations located outside the 'here and now' of the observed locality (Figure 1). Following this view, the locality is connected via specific relations to other locations. These locations can be situated in close vicinity to the locality or at a distance from it, or, in the extreme case, on the other side of the world. When conceptualised in this way, a heterotopia is a set of synchronic locations connected to the locality under study on one temporal level (see the horizontal perspective in Figure 1, i.e. particular heterotopias).

Besides the spatial dimension, there are also the temporal contours of place. Each place has its own history, development stages, layers of sediment, architectonic styles, technological phases, and life cycles. Each place is shaped by its own biography. This biography, however, is not contiguous in temporal terms. If a place passed through dynamic development stages that left visible imprints, these stages were usually followed by periods of stagnation that are not directly identifiable in the locality. The history of a present place thus consists of a set of formative periods that are not necessarily continuous in time but are spatially linked to a particular place. It is an ensemble of the periods of time that are synchoric—related to the single place. The temporal dimension of a place can be

called heterochronia (see the vertical perspective in Figure 1, i.e. particular heterochronias).

The meaning of heterochronotopia is a combination of heterotopia and heterochronia; a combination of the ensemble of synchronic locations (the horizontal level) with the ensemble of synchronic time periods (the vertical level). Heterochronotopia is a time-space concept that employs the potential of both. Place is not conceptualised here as a set of locations mutually related within one temporal level (e.g. the present), nor it is a mere sum of the various time periods that pass through a single locality (e.g. the history of a public square). Place is constituted and shaped by the ensemble of other locations in different times. First, each particular location has its own biography that is, at least partly, projected into the related locality under observation. Locality is thus connected not only with other locations but also with other biographies and other times. Second, each time period linked to the observed locality involves specific other places; the places that were or will be linked to the period, other places that co-created or will co-create the biography. In this respect, the other time periods link the locality to other locations, and the other locations connect the locality to other times. A heterochronotopia is not just another name for heterotopia or heterochronia. It is a concept by which place can be depicted through a set of mutually related places in different times (see the combination of the horizontal and vertical perspectives in Figure 1).

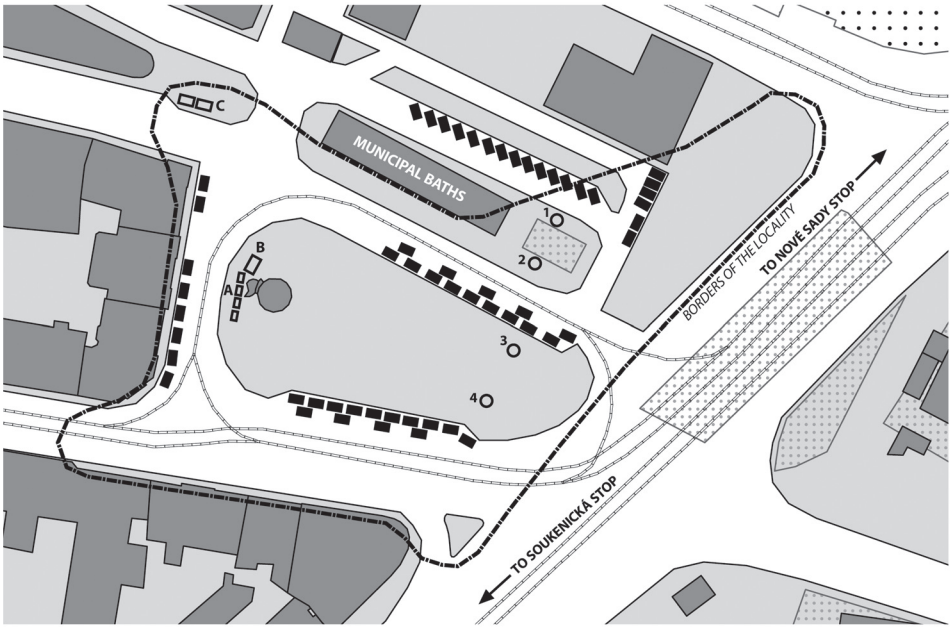
Heterochronotopias thus represent an alternative way of ordering space-time [Hetherington 1997]. They show place as non-restricted, unenclosed, atopic, and connected [Dehaene and De Cauter 2008: 5]. Heterochronotopias represent emplacements between locations and times from which they differ; they are sets of opposing relationships, an assemblage of linked contradictions, and a number of overlapping meanings [Elden 2009: 330]. Unlike place in the original humanist-geographic sense, heterochronotopias have no centre or centrepoint; heterochronototopias are thus decentralised, dislocated ensembles of locations. At the same time, heterochronotopias are not contiguous, closed, continual places. As an ensemble of locations, a heterochronotopia is geographically and temporally dispersed; it has no enclosed territory or period that could be determined as a contiguous space-time.

In the empirical part of the paper, we shall look at a method that can be used to describe place as a heterochronotopia.The aim is thus not to describe the humanist-conceived place as a meaningful, centred, determined, and spatial entity halted in time. On the contrary, the aim is to move away from this description and demonstrate how a contemporary urban place can be described in terms of its relations to other places (the first attribute) and other times (the fourth attribute), which are constantly changing with time (the second attribute) and therefore superimposing numerous various (and sometimes contradictory) meanings (the third attribute). The description of a place as a heterochronotopia will then comprise descriptions of those individual attributes that are the most characteristic for a place, instead of an exhaustive description of the whole.

Methodology

The locality selected here for the empirical application of the concept of heterochronotopia was in the city of Brno. The selection of the locality was largely random; or more precisely, the locality was not selected for its semantic, functional, or aesthetic qualities, but purely pragmatically for characteristics facilitating the survey. What was taken into consideration, therefore, was its accessibility for the authors of this article from their places of residence and work, its accessibility via public transport, its level of illumination at night, and its global observability. At the same time, locations already covered by other studies [Galčanová, Osman and Vacková 2011; Vacková, Osman and Galčanová 2012] were dismissed because of their already defined semantic categories. Apart from these criteria, it was a random choice. The locality was chosen in the vicinity of the intersection of streets Nové Sady, Hybešova and Nádražní; the working name 'Nové Sady' is used in the paper. The locality is situated on the outskirts of the historic city centre, near the main railway station. Tram tracks pass through the locality (including a turning loop) that are used by five regular lines. The locality also has a very good

Figure 2. Locality overview



Note: 1,2,3,4 – public trash cans; A – waste paper containers; B – waste plastic container, C – waste glass containers.

connection to highway network. Besides the transport function, the residential function of the locality blends with its service function, represented mainly by shops, offices, restaurants, and medical offices.

The simple delimitation of the observed locality became a separate issue. Given that we sought to capture the chronotopic (spatio-temporal) nature of the place, a simple spatial delimitation of the locality in advance did not seem appropriate. A different approach was therefore chosen. The locality was first observed for several hours during different parts of the day. At this stage, the focus was mainly on recording the flows of movement and their direction, speed, and fluency in all daily situations. The observations showed that the locality exhibits completely different flows during the morning rush hour, lunch break, or after dark. The spatial extent of activities thus changes over time and it would be possible to spatially delimit the locality differently for different daily situations. The final delimitation presents situational or processional nature of the observed locality. Processional 'self-containment' was not employed to describe the locality but was done rather for a purely methodical purpose. Our aim was not to delimit and bound space in order to separate it from other spaces; on the contrary, we sought to document the interconnection of a delimited locality with other locations. The borders of the locality are not to be perceived as separating and dividing. They are used to accent other spatial relationships than those concerning the borderline. The borders are a way of connecting the locality with other places than those directly adjacent to it [Subrahmanyam 1997]. Border delimitation is a necessary methodical step, and through it we were able to focus our research attention and to enter and get an overview of the locality in a short time and from a fixed standpoint. By delimiting the locality we were able to make the physical fix of our heterochronotopia research.[6] On its south and west sides the locality is determined by the frontage of a block of houses; on the north side by the presence of several journey destinations (medical centre, tram stop, benches, trash cans, and semi-public toilets), and on the east side by a large and busy street with cascades of traffic lights (Figure 2).

Thus defined, the locality was then observed for over 40 hours during the autumn of 2015 (September, October) and the spring of 2016 (March, April).

[6] To a certain degree, there is an analogy with the follow-the-thing approach of Ian Cook [2004, 2006, 2007]. Just as Cook attempts to follow a single thing beyond its actual presence 'here and now', we attempt to follow place beyond the spatial and temporal borders of the observed locality. Cook follows clearly delimited things (e.g. papaya, pepper sauce, chicken, etc.) that move through space; we, alternatively, follow a place, which is less delimitable and also more static in space when compared to the commodity thing. A heterochronotopic place moves in space, however, in a different way; it moves as a consequence of changing relations to the other locations that produce it. In order to follow this movement of place, we have to delimit a specific part of space—a locality. Only this procedure allows us to follow it both in time and space and consider this specific part of space as a place, and more specifically as a heterochronotopic place.

Grounded theory [Glaser and Strauss 1967; Strauss and Corbinová 1999] was used as the basic methodological framework, which enabled us to start with empirical data from unstructured observations and let the topics emerge gradually. Several separate topics emerged out of the observations and proved to be site-specific and characteristic for the observed locality. The building of the Municipal Baths on the north side of the observed locality proved to be one of the landmarks of the whole locality, both a functional and a visual one. This building is one of the main destinations and one of the reasons why people visit the observed locality, while it is visually completely atypical compared to the architectural style of its surroundings (Figure 3). The locality as a whole is primarily dominated by its transportation function and is used as an informal intermodal city hub, allowing its users to switch between various modes of transport (train, tram, bus, car, bike, etc.) and smoothly connect to the individual networks of these other transport modes (Figures 4, 5). The most commonly observed activities within the locality were various forms of waste handling. People brought waste to the locality, disposing of it, unloading it, sorting it, collecting it, raking it, untangling it, transferring it, and tying it, and then in turn picking it up, loading it, trucking it, and carrying it away (Figure 8, 9). Given the scope of this article, we had to limit the empirical part of the text to the following three selectively chosen topics—the heterochronotopias of the building, transport, and waste, which, however, represent the most characteristic heterochronotopic features of the locality. Each of the topics is presented as a network of various links between locality and spatially or temporally remote locations. The extent of these relations can be considered infinite, or, more precisely, endlessly branching and therefore temporally or spatially undelimitable. The extent of the building, transport, and waste heterochronotopias thus depends entirely on the nature of the empirism itself, which determines how far it makes sense to discover and describe the particular networks [Latour 2005: 148] and to add new locations into the ensemble. While the absent locations connected to the building in the locality were described using empirical material in the form of historical texts, photos, and literature, the absent locations connected to the transport network were described with field notes of observations, surveys of users, informal interviews, public transport timetables, and the annual publications of the public transport company, and the absent locations connected to waste in the locality were described with data from field notes, informal interviews, the websites of individual companies engaged in waste management, and photodocumentation of waste in public garbage bins. The waste itself (its weight, colour, substance) was not analysed in detail [Sosna 2015; Sosna and Brunclíková 2015], but attention was paid to visually identifying basic categories of waste (bottles, cups, cigarettes). Furthermore, the time and frequency of the occurrence of waste was recorded, as were any signs linking the particular pieces of waste to specific retail chains.

The heterochronotopia of the building

On its northern perimeter, the surveyed locality is enclosed by the solitary, utilitarian building of the former Municipal Baths. Its 1920s functionalist architecture strongly contrasts with the exteriors of the surrounding tenement houses from the 19th century and with the look of the modern administrative building in the southern part of the locality. The Municipal Baths building can be taken as an example of initial material grounding, from which a number of the absent locations of Nové Sady can be described (Figure 3).

The specific architectural concept of the baths is significant in the heterochronotopic interpretation of the place. The form of the building, which to the external observer reveals its now infrequent public municipal function (baths), creates the unmistakable visual brand of the locality. The fact that the 1928 baths building was designed by Brno architect Bohuslav Fuchs integrates the locality of Nové Sady into an ensemble of locations connected by the narrative of 'Brno functionalism'. For contemporary historiography, Brno functionalist architecture

Figure 3. Municipal Baths

Photo: Authors.

and urbanism represent important elements in the symbolism of the birth of the modern city during the 1920s and 1930s (for more on the narrative approach to the Brno space, see Koryčánek [2003]). Locations with functionalist architecture represent privileged places in contemporary Brno, in which the cultural and economic boom of 1920s Brno has been accumulated. The seemingly banal baths building thus privileges the Nové Sady locality through its relationship to other, often more prominent locations (such as the Tugendhat Villa, Brno Exhibition Grounds, or residential complexes in Masaryk Quarter), i.e. to places with a materialised and reproduced narrative of urban modernity. Nové Sady locality is thus emplaced within an ensemble of locations that are usually referred to as 'Functionalist Brno'. This emplacement is purely contemporary; it is a testament of how the mainstream-produced symbolism of urban spaces has moved in time and how strongly the symbolism is reproduced in the official books on the city's history, tourist guides, and specialised urban studies. For example, the 'Brno Architecture Trails' project directly integrates the Nové Sady locality into an explicitly expressed ensemble of locations, which is materialised through guided walks and technical and marketing materials. However, the ensemble of 'functionalist locations' is only valid within the actual, contemporary time plane, and it is not the only possible ensemble of locations that embrace the locality. For example, in connection with the building's transformation into the headquarters of a private medical facility in 2013, the locality can also be seen as an ensemble of health-care locations.

One and the same building can also act as a medium that links the locality to other times, regardless of whether past or future. The position of the former baths, now a health centre, in Nové Sady cannot be explained by any current processes. To understand the logic of the function at the given locality, it is necessary to proceed to a diachronic explanation following the story of the locality in the flow of historical time. What connects the trans-temporal and trans-local character of the locality in this case is the watercourse of the 'Svratka millstream', which was built back in the 11th or 12th century to supply water from Svratka River to artisan workshops located in the southern suburbs outside the walls of Brno. During mediaeval and modern times, the millstream significantly defined the Nové Sady locality ontologically and shaped its physical materiality; among the locality's main features was Lampl's Water Mill and Novosadský Bridge across the watercourse. The presence of the millstream simultaneously shaped the locality's relations to other locations. As early as the 15th century and in the close vicinity of the mill, a pump for the municipal water supply was built to supply drinking water to fortified Brno [Archaia 2010]. The infrastructure of the pump and the water supply physically linked Nové Sady with the city and simultaneously formulated the heterochronotopic nature of the locality as a remote 'place beyond the walls', which is nonetheless still a significant presence in the walled city through the water that is supplied to the city's fountains at the Upper and Lower Market (today's Zelný Market and Svobody Square) and to the municipal brewery [Kuča 2000]. Novosadský Bridge, as the point where the leat can be crossed, directed traffic flows through

the locality of Nové Sady towards the Jewish Gate, one of several entrances to the walled part of Brno. During the 19th and 20th centuries, the ontological status of the locality changed as a result of the expansion of the administrative boundaries of Brno, the construction of the nearby railroad (1836–1838), and the construction of a new water supply network. Nové Sady lost its function as a settlement, mill, bridge, and municipal pump on a millstream and reappeared in the rear area of the freight depot as a potential development site for metropolitan housing in the booming city. The materiality and functionality of the locality, however, showed and still show some momentum: the structure of the municipal pump was rebuilt as a popular shower spa in the early 20th century, and then rebuilt again as baths by Fuchs in 1928, and finally the building was adapted for a health-care function in 2013. The development of the locality's aquiculturing, hygiene, purification, and health-care functions of the locality expresses the reflection of changes in external absent locations. The momentum of the emplacement of a function in a particular location and building is, in contrast, an expression of a progressive accumulation of time, which started to unravel within the spatio-temporal context of the presented story with the construction of the Svratka millstream. Although the millstream itself was filled and therefore physically removed in 1959, its trans-temporal effect is still apparent in the locality, even into the future. Several urban studies have elaborated plans for the restoration of the watercourse [Pavlovsky 2010; Šerek 2011] cover besides Nové Sady other places that the millstream has historically passed through. The millstream is seen as an old-new factor of identity, an element entering the locality repeatedly at various points of time in historical development and allowing the Nové Sady locality to be understood not only within the 'here and now' but also in the spatio-temporal sense of 'there and then'.

The heterochronotopia of transport

Transport is one of the basic and in fact typical features of the Nové Sady locality. The locality encompasses virtually all commonly imaginable modes of transport, which not only exist there side by side, but above all mutually combine, merge, and produce its heterochronotopia—various remote locations are present thanks to transport in Nové Sady. Immediately adjacent streets and the city centre nearby are connected to the locality through four frequented pedestrian transit routes; individual neighbourhoods in the city, including some large housing estates, are connected to the locality through the extensive tram transport system; and a much larger number of suburban and also more remote locations are connected to the locality via vehicular transportation. Cars can be seen parked or passing through the Nové Sady locality that have license plates from various regions in the Czech Republic and even from countries abroad and bear the names and logos of companies based in other cities, and there are also traffic signs with, among others, the names of the relatively distant capital cities of Prague, Bratislava, and Vienna (Figure 4).

Figure 4. Road signs in the locality

Photo: Authors.

The presence of the space-time of the city itself and its broader commutable periphery in the locality is provided by public transportation combined with pedestrian and vehicular transportation. The unique position of Nové Sady plays a role here as it is situated between the immediately adjacent centre of Brno on one side and the more distant but still very easily accessible locations on the other side, both within the city itself and beyond. This uniqueness partly derives from the excellent position of the locality in the Brno tram network, which is currently one of the most prominent tram intersections within Brno because it is where the tram lines branch into four routes. The number of easily accessible tram destinations within Brno from Nové Sady is, however, much higher given the presence of other crucial tram branches lying in the vicinity of the locality (Figure 5).[7] These

[7] Nové Sady became a part of the tram network as early as 1869 when a horse-drawn tramway from Pisárky to Královo Pole crossing through Nové Sady and the main railway station was opened for passengers. Other milestones in the connection of Nové Sady to the tram network are the 1920s and the 1930s, when Greater Brno was formed and subsequently the tram routes were rapidly expanded to a great number of distant suburbs; then in

Figure 5. The locality in a wider spatial context

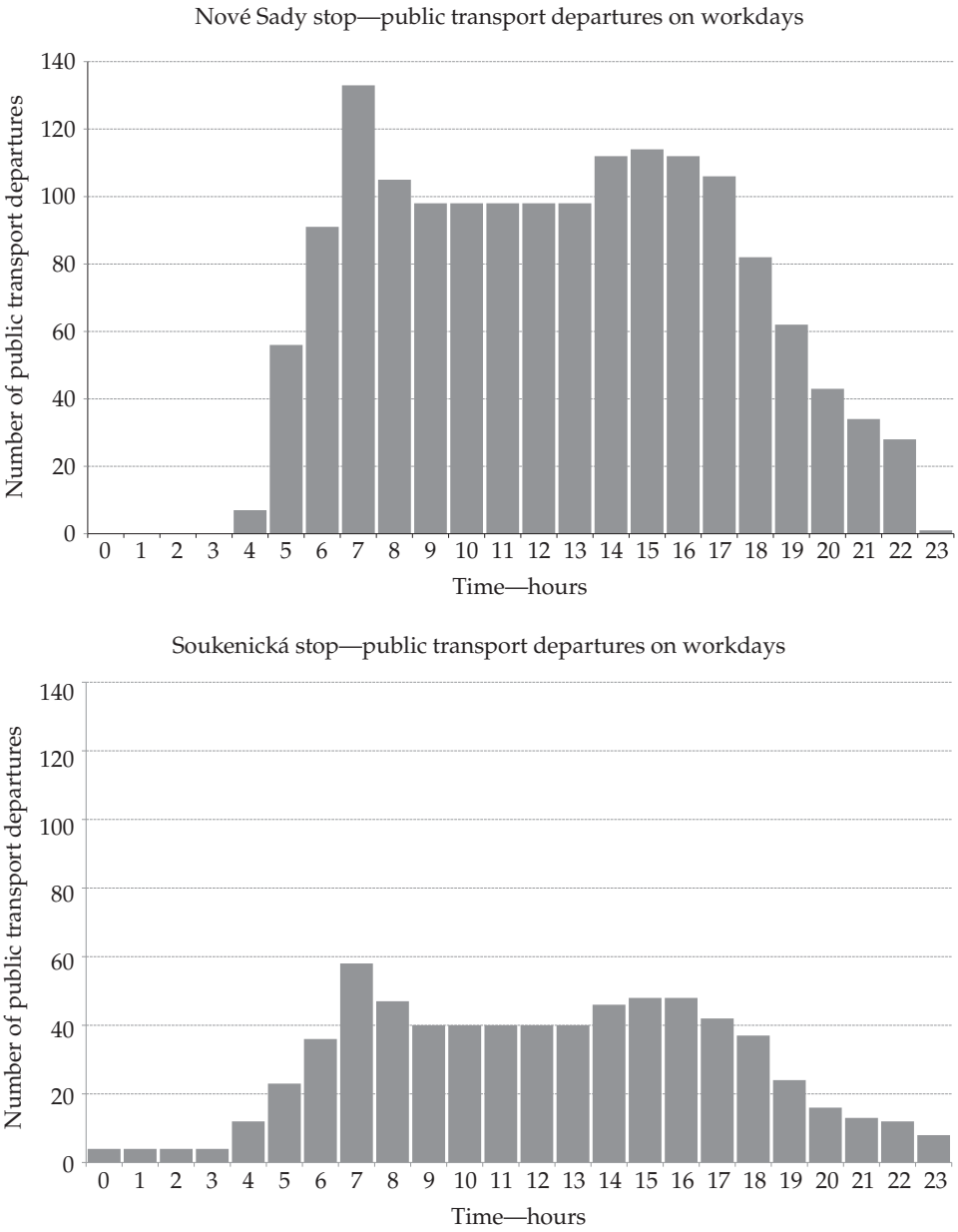
Note: 1 – waste collection and recycling centre; 2 – incineration plant; A – locality.

important tram intersections, like Hlavní nádraží (the main railway station) and Česká or Moravské náměstí (two public squares), share a common feature with the locality as together they form a system of spatially better connected and therefore temporally privileged points within Brno.

The locality also occupies a special position with respect to automobile transportation, since Nové Sady is where a high-capacity four-lane road begins. Thanks to this road a system of several outward-bound radial motorways is incorporated within the heterochronotopia of Nové Sady. No other place in the direct vicinity of the Brno city centre has such a position. Outward-bound motorways were moreover a traditional presence in Nové Sady, as they have been developed since the Second World War [BAM 2015] and the residents of the city and its users are accustomed to them. At present, there are 47 permanent parking

the year 1942, when a new route was opened directly from Nové Sady through the newly made road below Petrov Hill, thus completing the inner city tram route ring via Husova Street; and the year of 1994, when a new rapid transit radial route from Nové Sady to the Starý Lískovec housing estate was opened [Klapka et al. 1980; Morávek et al. 1989].

Figure 6. Public transport departures on workdays from the stops Nové Sady and Soukenická



Source: DPMB [2015].

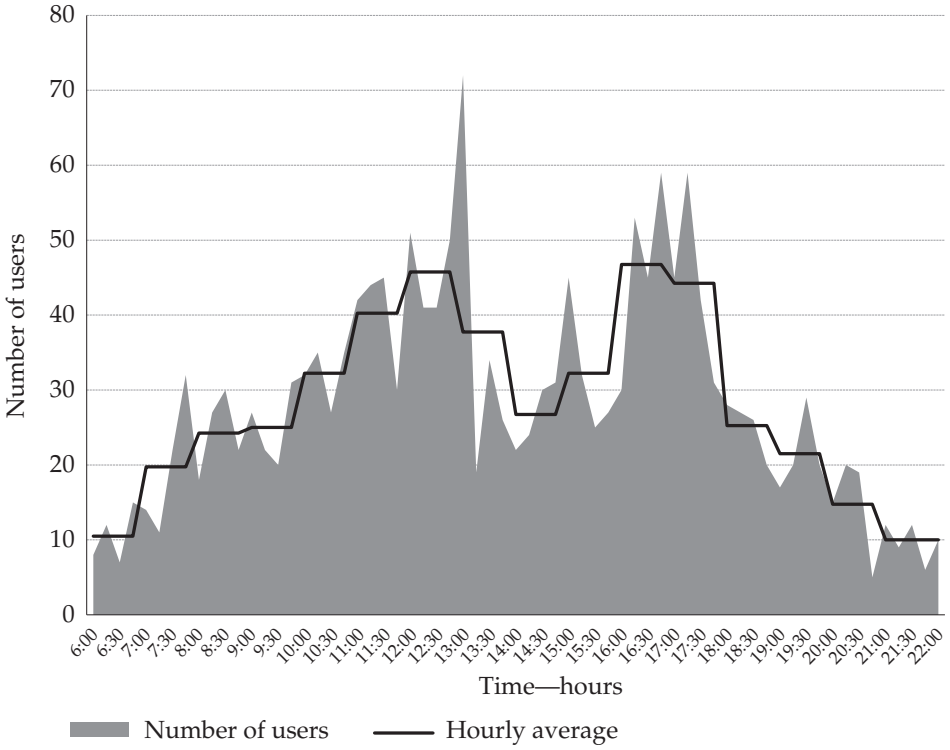
spaces within the surveyed locality, and 9 second-row spaces where it is possible to park cars temporarily.

The locality serves as a crucial formal and informal transfer point between pedestrian, vehicular, and public modes of transportation. Formalised transfers between public transport connections occur mainly at the Nové Sady tram stop (tram lines 1, 2, 8, 10 and 12) and the Soukenická stop (tram line 8 and bus lines 60 and 61). These lines connect all the important locations served by public transport within the city of Brno to the Nové Sady locality. The significance of Nové Sady's function as a place for transferring between public transport and other transport modes has to do with the good frequency of public transport connections, which may then be perceived as being temporally almost continuously available. The rhythm of public transport connections at stops in the Nové Sady locality (Figure 6) provides a good reflection of the temporality of other locations, as the need to transfer at the Nové Sady stops is directly related to the rhythms of people traveling between locations for different purposes such as commuting to work, school, and so on. In general, the public transport peaks in Nové Sady are a clear mirror of the work and other regimes people in distant locations adhere to.

Informal transfers from and to passenger cars take place in the parking spaces in Nové Sady, where is a relatively frequent fluctuation of parked vehicles. The field survey showed that a number of cars stop only for a short period of time, as in some of the parked cars people are sitting and waiting, or they unload or load the car, and the cars often stop to let someone get out or to pick someone up. These are relatively frequent activities and waiting to be picked up by a car is even one of the most common reasons pedestrians stop in the area.

The locality's intermodal character is reinforced not just by the merging of tram and car traffic but also by pedestrian traffic. The rhythm of this traffic is completely different from the prevailing time regimes of the other, but mainly local, pacemakers: offices in company buildings and other facilities like restaurants. The largest number of pedestrians pass through the locality at a time that coincides with when restaurants are offering their lunch menus, which is between 11:30 am and 1:00 pm (Figure 7). During this period, pedestrians in groups were observed, in most cases, heading either from the city centre or from the nearby AXA insurance company building to a restaurant on the ground floor of the Titanium Business Complex and then back to their offices. This peak, unlike the traffic peaks, is made up of locally employed persons and takes place within the frame of the local network. A large number of pedestrians also appear in the Nové Sady locality between 4:00 pm and 5:30 pm. However, there is no significant increase in the number of pedestrians in Nové Sady during the morning rush hour; the arrival of people from other locations at their offices and mainly at the Titanium Business Complex is spatio-temporally concentrated, straightforward, and takes place outside the surveyed site. The daily rhythms of pedestrians and public transport users during certain parts of the day complement each other, as the morning peak mainly takes the form of tram transportation while the lunch

Figure 7. The rhythmicity of the place—number of pedestrians in Nové Sady on a workday



break peak takes the form of pedestrian transportation. This shows how the local rhythm intertwines with location times introduced into the locality by public transport, mainly trams.

The Nové Sady locality has a very strong transit and transfer function and traffic represents the dominant activity, which is self-reinforcing in the long term. An impetus to further increase the traffic-determined locality's heterochronotopia could come from the possible development of a Brno railway junction that is to be called 'Petrov'. If this development occurs in the coming decades, there will be a major railway station for passengers that will be located at the edge of the locality and a completely new mode of transport, railway, will be available in Nové Sady [Europoint 2015]. This station would be served by suburban and by national and long-distance international rail lines, which would then bring further new locations into the heterochronotopia of Nové Sady. Locations like Budapest, Graz, Dresden, Berlin, Hamburg and many others would be newly present in the local-

ity, for example, in the form of train destinations, signs in electronic information devices for passengers, and perhaps also in the names of the trains (Hungaria, Macocha, Sázava) etc.

The heterochronotopia of waste

During the long-term observation of the locality, a large number of very diverse activities related to waste handling were identified. The location itself represents a kind of sorting place in which each type of waste has its own specific spatial and temporal regime and specific 'location' (mixed waste, paper, glass, plastic, construction waste, catering waste etc.). Waste interconnects the locality with other locations within at least two basic spatio-temporal networks, a network of producers that interconnect the locality with locations producing waste, and a network of processors that link the locality to locations where the waste is transported and processed. Through the act of bringing material into the locality there occurs a semantic transformation of product into waste and when material is removed from the locality a reverse semantic transformation from waste to product occurs. The locality is thus not only an intersection of routes of various materials, and it is not only the set of locations where the flow of waste begins or ends, but it is also a place where the meaning of this material is redefined.

First, we will focus on the network of producers of waste and on the locations of waste production. There are only four small public waste bins for mixed waste available in the locality. The analysis of their content reflects the main function of the locality, which is primarily transportation; people cross the locality, stop mostly at traffic lights, make phone calls,, smoke, etc. Users relatively rarely stop for a longer period of time and still more rarely sit down here. However, when they do sit down, they often do so to drink, eat snacks, and some even to have lunch. These activities are associated with a specific type of waste, which includes primarily food and beverage packaging (Figure 8). From the several types of cups that bear recognisable brand characteristics, it was possible to determine the location from which they were brought into the locality (coffee shops, such as the Coffeeshop Company, or fastfood restaurants such as McDonald's and KFC). The largest volumes of waste observed in the locality were produced during lunch peak times (11:00 am–1:00 pm).

Besides the mixed-waste bins, the locality is also equipped with recycling bins (plastic, paper, glass). However, they operate in an entirely different regime. The volumetric capacity of these recycling bins is much larger, which suggests that they also take much longer to fill. At the same time, the management of their use differs. For the users, these recycling bins become the specific objectives (sub-objectives) of their trips, while some users head to containers from relatively remote locations from where they usually bring in larger amounts of waste all at once. Informal interviews revealed that the recycling bins are used by a private

Figure 8. Mixed waste in public garbage bins on 20/10/2015

Photo: Authors.

kindergarten teacher, who brings on average two plastic bags of sorted plastic to the bins once a week. The recycling bins are also used by restaurants located both directly in the locality and in its immediate vicinity. For example, the restaurant 'U Emila' takes out paper and plastic trash to the bins every day and the employees of a pub further away called 'Klub na dráze' drive to the bins with waste on a cargo tricycle carrying their own recycling bins, in their own words, 'whenever they are full'. In this way, it would be possible to trace the set of homes and businesses from which the waste is brought to the locality and with what regularity. Waste, however, can get to the locality in a far less obvious way, too. During the observation, the roof on the house at 478/18 Nádražní St. began to be replaced, and two construction waste containers were placed next to the house and filled with old tiles and wood. Therefore, in a way these 'temporary' containers for another type of waste in this case brought waste to the locality not horizontally but vertically. At the same time, waste is also transported to the observed locality by street waste pickers. The locality is situated at the end of the routes of several pairs of 'pickers'

Figure 9. The alternative routes of one pair of garbage pickers (Thursday 8/10/2015)

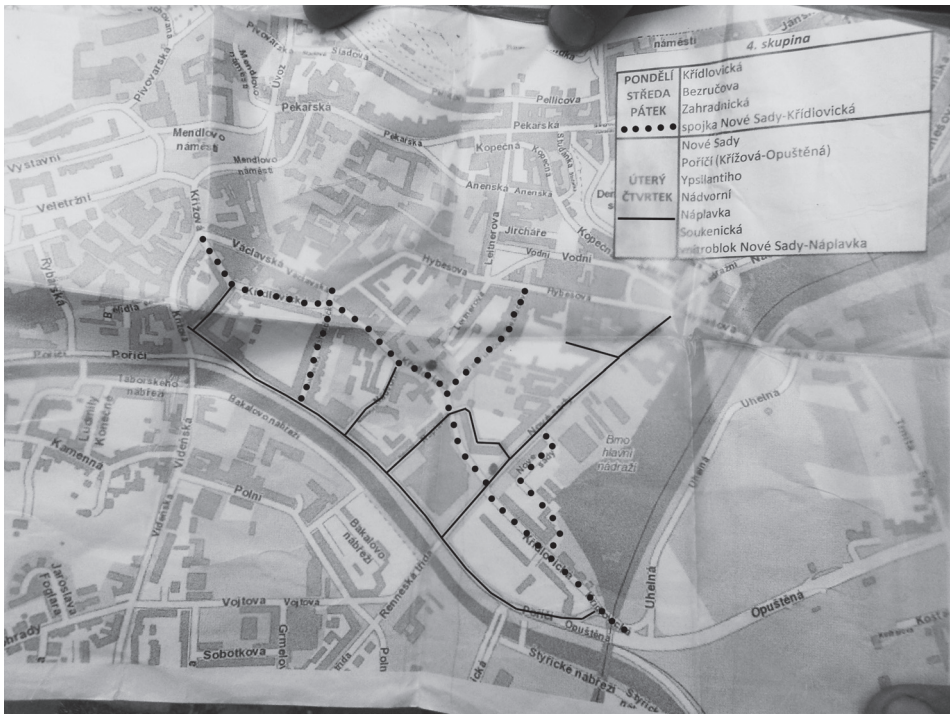


Photo: Authors.

(employees of Brno City Municipality), who regularly walk through the specified routes. An informal interview revealed that they go through one route (orange) on Mondays, Wednesdays and Fridays, and the second route (green) on Tuesdays and Thursdays (Figure 9). The pickers dump the collected waste into large bags which they tie up and leave at the specified part of the locality. Up to 11 bags of waste collected in this way were recorded at one time during the observation.

The second network, which relates the locality to other 'heres' and other 'nows', is a network of waste processors, which is no less complicated. The main activity of the waste processors is the regular collection of waste from the locality for further processing to other absent locations. At least five different companies involved in waste collection have been observed (Table 1), and each company specialises in a different type of waste. The most often observed company in the locality was SAKO Brno, which collects household waste from individual buildings in the locality. Informal interviews revealed that SAKO employees have keys to the front doors of the houses and collect waste directly from the inside areas of the individual houses. The waste is collected from the residential houses

Table 1. Companies that collect waste from the locality

Company	Address	Waste type	Collection frequency
SAKO Brno, a.s.	2 Jedovnická Street, Brno	household waste, paper, plastic	various
DVOŘÁK comte, a.s.	21 Palackého Square, Brno	municipal mixed waste	daily
Kaiser servis spol. s r.o.	608/36 Bezručova Street, Blansko	food waste	Mon., Wed., Fri.
AVE komunální služby a.s.	592 U Vlečky Street, Modřice	glass	bi-weekly
FALKY spol. s r.o.	637/141e Kaštanová Street, Brno	collected municipal waste	weekly

twice a week, every Monday and Thursday, around 8:00 am. Office buildings then have their own regime of waste collection according to their specific needs. The Titanium Business Complex situated on the outskirts of the observed locality has its own central waste storage from which SAKO collects municipal waste every day, paper and plastic waste three times a week (Mon, Wed, Fri), and glass waste on request. SAKO disposes the municipal waste in the incineration plant at 2 Jedovnická Street, Brno, where it is burned. SAKO, however, also collects waste from public recycling bins with sorted waste (paper and plastic), which are emptied weekly. Both of these types of waste are moved to the sorting line, also at 2 Jedovnická Street, Brno, where individual types of secondary raw materials are sorted, pressed into bales, and weighed. This sorted plastic is then resold, most often to PETKA CZ, whose registered office is at 592 U Vlečky Street, Modřice. The purchaser of the sorted paper could not be identified; according to SAKO representatives, purchasers of this commodity fluctuate dynamically.

Sorted glass is collected from the public recycling bins every two weeks by AVE komunální služby (community services), which is also based at 592 U Vlečky Street, Modřice, where the waste is also sorted, loaded onto trucks, and transported to Vetropack Moravia Glass factory in Kyjov. The mixed municipal waste from the four bins available at the locality (Figure 2) is removed by another company that collects waste in the locality. Employees of DVOŘÁK Comte come to the locality every weekday morning between 7:00 and 8:00 am, collect the contents of the bins, pick trash from the ground and rake leaves. Waste is then transported to the collecting area at Brno-Řečkovice railway station; from there it is transported to the incineration plant. One of the restaurants in the locality hires a waste removal service called Kaiser Servis, whose central dispatch is based in the vicinity of the SAKO incineration plant. The waste from the restaurant is collected every other day (Mon., Wed., Fri.) during the opening hours of the restau-

rant. The last of the companies, FALKY removes the mixed waste collected by the 'pickers' in the adjacent streets from the locality, most often once a week. Although the management of collection of various types of waste from the locality is highly individualised, uncoordinated, and non-systematic, most of the waste is transported either to the incineration plant at 2 Jedovnická Street, Brno, or to the collection point at 592 U vlečky Street, Modřice, where a number of companies engaged in secondary waste processing are based.

Besides the official waste collection in the locality, there is also unofficial 'removal' of waste. During the observation, people with shopping carts repeatedly passed through the locality, stopping by garbage bins. They even kept repeating the same tracing. We managed to conduct an informal interview with one of them. The person goes through the locality regularly, every weekday, always around noon (1:00 pm). His route starts at Rondo, the name of a multipurpose hall, and then continues along Křídlovická Street, Václavská Street, and then Hybešova Street and back to the observed locality, and then it continues in the direction of the main railway station and the collection point in Plynárenská Street. He collects mostly metal and old electrical appliances, and not only on the street—upon agreement he is willing to collect it from households. Similarly, we observed a person who specialised in collecting returnable bottles and who was using two sticks to pull unbroken returnable beer bottles out of the glass recycling bins. He reported that he does not come to the locality entirely regularly, but checks it out twice a week, depending on 'how things go'. He then returns the 'rescued' bottles to one of the nearby supermarkets (Tesco, Billa, Albert). There is thus a redistribution of a certain portion of waste to the immediate surrounding area of the observed locality before the official collection and transport of the waste to the sorting areas takes place. While the official waste collection connects the locality to relatively remote locations, the unofficial waste 'removal' connects the locality with locations in close proximity. Each agent uses a different technology of waste collection/removal, operates on a different scale level, and connects the locality with different meanings. Similarly, the extent of networks of different kinds of waste can be compared. While municipal and construction waste is produced directly at the locality and on a regular daily basis, sorted waste is transported from its neighbourhood in regular cycles (weekly, bi-weekly), and public mixed waste is brought to the locality from relatively distant locations (coffee shops, restaurants, food, etc.) and emerges mainly during lunch time.

Conclusion

Using the concept of heterotopia, Michel Foucault introduced a new way of thinking about place within a space of relations. A heterotopic conceptualisation of place systematically rejects the hierarchical organisation of space and, to some extent, blurs the repeatedly reproduced semantic boundaries of traditional spatial concepts such as place and local, here and there, centre and periphery or

inside and outside; instead, it emphasises the importance of the unique emplacement of place within a space of relations. The relational approach makes it possible to see a place in connection with other locations, which, though often remote, are present in some way and are important in terms of how that particular place is defined.

In this article Foucault's heterotopia is understood as a broader theoretical framework for a critical discussion of place. The article's aim was to discuss a geographic conceptualisation of heterochronotopia or more precisely a heterochronotopic place. From a geographic point of view heterochronotopia would not be perceived as a locality that maintains relations to all other locations. However, it can be conceptualised as a locality that has connections only to certain locations. Connections and relations themselves are not so interesting in this sense. It is rather the ensemble of locations linked to the locality that makes the concept beneficial for geographic application. The geographic conceptualisation of heterotopia thus assumes that the locality is connected via certain linkages and relations to other locations that are not necessarily spatially adjacent to the locality. The heterochronotopic concept further assumes that the locality is linked also to locations in other time periods, both past and future. A place is thus constituted not only by the ensemble of various locations present in a single temporal level and not only by the ensemble of various time periods that are present in a single location. It is constituted by the ensemble of other locations in different times. A concept is thereby formed with which it is possible to identify places not only as spatial entities, but, at the same time, as temporal or spatio-temporal entities. The concept of heterochronotopia makes it possible to describe the specific historical development of a place and to reflect its biography. A post-industrial place can be grasped not only through its present meanings but simultaneously through the meanings of its industrial history; a post-colonial place through the meanings of the colonial period and a post-socialist place through the meanings linked to socialist times. In this sense, heterochronotopia represents not only the ensemble of specific locations on a certain temporal level but the various locations interconnected across past, present, or future times.

The heterochronotopic approach conceives a specific place as simultaneously trans-local and trans-temporal—a condensed description of the emplacement of a location is possible only if the temporal and spatial relations are interpreted concurrently. This is showcased in three empirical sections in this article: the heterochronotopia of a building, of transportation, and of waste. These sections document to varying degrees the four described attributes of a heterochronotopia: (1) the place's relational character, (2) changes in the place's meaning and function, (3) the place's semantic overlayering, and (4) the plurality of times in one place.

The empirical chapter on the heterochronotopia of transport describes the ensemble of locations that are interconnected by transport networks on different scale levels and the way in which the spatial configuration of the public transport

networks brings into the locality the rhythms (i.e. temporality) of other locations, such as remote housing estates, whose inhabitants leave for work and then return home at a specific time of day. This connection also involves a temporal dimension: it links the locality to the periods when the housing estates were constructed and when the related sections of the tram system were built. The ensemble of locations linked to the locality through any of the transport modes mentioned above (pedestrian, tram, car) represents just one of the possible ways in which to grasp a place heterochronotopically. It is obvious that another ensemble of locations might be defined by different transport modes. For example, the sewage and energy infrastructures connect the Nové Sady locality to the distant and seemingly invisible locations of the transformer stations, power plants, pumping stations, and wastewater treatment plants, but they also connect these locations to the time periods in which the technological, political, and economic contexts in which the construction of these infrastructures was made possible.

The production and collection of waste examined in the article represents another heterochronotopic mode, another specific assemblage of times and places; similarly other assemblages can be connected by commuting, by corporate relations between financial institutions headquartered in the locality, or by relations maintained by people residing in the locality. The issue of waste was picked up and developed because of its strong relevance for the locality. During the observed time waste was being handled, brought to the locality, carried out of the locality, or produced and sorted. On the basis of the waste we were able to show the many various links to other locations that intermingle in the locality, their rapid alternation, and the rhythm at which a heterochronotopic place transforms from one ensemble of locations to another. In other words, a heterochronotopia can be seen through the prism of waste production/collection as an entity stemming from an ensemble of other locations rhythmically varying in time.

The temporality of a place however cannot be limited only to the rhythms brought into the locality by various 'heres and nows' of other, absent locations. The heterochronotopic concept also works with the temporality of locations from different historical times. As documented in the section concerning the Municipal Baths, it is desirable, in this case, not to separate the physical dimensionality of the place from the flow of time in it or outside it. Material structures in the place are expressions of accumulated time, through which the locality is more or less intensely connected not only to historical, but also to future points in time. Mediaeval Nové Sady is a place distant not in the spatial sense, but certainly the temporal sense—despite, or perhaps because, it is a rightful part of an assemblage of times that defines the current form of the surveyed locality. The present building of the baths connects the locality to the times when the millstream flowed through, when the water was being pumped over the walls, and when the people were bathing there. The heterochronotopia of the observed locality is linked through the building of the baths to distant locations (river, weir, city centre) that shaped and constituted it at the time. Other buildings in the locality,

the configuration of street lines, place names, trees, and so on, represent similar accumulations of time.

Place as a heterochronotopia is in the article primarily examined from a geographic point of view. A strong motivation for exploiting this concept is the determination to take a stand against the classical humanistic geographic conception of place in space and more effectively integrate time and space into a meaningful explanatory framework. The article deliberately does not work with a place as perceived, experienced, and lived by an individual observer, so the various meanings being attached to the place by individuals or different groups of users lie outside the scope of this article. The research focus here is on the representation of place through other places. The representation approach applied, however, does not imply necessarily an a priori fixation and delimitation of place. Place can be considered fixed just in a single temporal layer—it is the heterotopia that connects the locality with synchronic locations. Conceptualising place as both a heterotopia and a heterochronia we go beyond this limited view. The heterochronotopic place involves a wide range of layers evolving and reshuffling in time; it can never be paused or fixed. At every moment there are new relations emerging that connect the locality with new locations and constitute the heterochronotopia of Nové Sady. Nové Sady is thus permanently happening, permanently produced, and permanently practised and becoming. To be more precise, place is in our view practised through other locations and this practice is captured in the flows of people, things, and materials connecting the observed locality with absent locations. In this text, we traced how this heterochronotopia is constituted through the movement of the river water (material), the movement of human users (people), and the movement of waste (things).

As a result, in the place of a humanistic place, understood as semantically unambiguous and relatively static in time, as a delimited and territorially contiguous space, we have a heterochronotopic place, emerging and fading as an ensemble of other places of different times. The case study of the Nové Sady locality in Brno demonstrates the possibilities of the heterochronotopic concept showing that its definition and meaning do not emerge in situ, but as a result of relations with other, temporally and spatially absent locations. A heterochronotopia is thus a useful tool for capturing the meaning of places with a disrupted, substituted, planned, controlled, or otherwise modified history.

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The establishment of inter-municipal cooperation: the case of a polycentric post-socialist region

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ABSTRACT

The paper deals with the process of establishing inter-municipal cooperation among towns, particularly among towns in a polycentric settlement system. Emphasis is on the specific temporal context of transition from a central administration to a decentralized form. For a more detailed analysis, the territory of the eastern part of Pardubice region, Czech Republic was chosen as the study area. Our research question therefore aims at the mechanisms of cooperation experimented with by the representatives of individual towns and it reads: "Which forms of inter-municipal cooperation can capitalize on a polycentric settlement system following the dismantling of the socialist centralized governance system?" To answer this question, semi-structured interviews were conducted with authorities of towns of the area. Based on the analysis of interviews, we show four distinct stages in establishing mutual cooperation were determined: stakes, emerging border areas, connecting projects and joint territory management. They are not stages in terms of discrete periods of time, but phases in a process of getting new experience with cooperation among municipalities. Findings are that a new strategic action field needs to be established in order to achieve a form of inter-municipal cooperation that would enable to gain the benefits of a polycentric post-socialist region.

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1. Introduction

The paper deals with the attempts to establish inter-municipal cooperation among several towns. It explores the social processes that enable or prevent local administrations to establish non-hierarchical forms of cooperation within a polycentric post-socialist spatial arrangement. The study area comprises ten small towns in the eastern part of the Pardubice Region in the Czech Republic. This region meets the basic morphological and functional characteristics to be called polycentric. The aim is to show how the process of establishing mutual cooperation among the towns of the region shapes their ability to take advantage of what a polycentric urban region has to offer.

In general, the questions guiding the study of (polycentric) urban systems are related both to the issue of scale, spatial structure and dynamics of particular territories as a part of urban studies (Burger & Meijers, 2012; Kloosterman & Musterd, 2001), and to the issue of polycentric decision-making, governance and inter-actor cooperation as a part of urban and political science (Albrechts, 2001; Finka & Kluvánková, 2015; Hendriks, 2006; Ostrom, Tiebout, & Warren, 1961). Our primary question uses polycentricity and post-socialism as spatial contexts for various strategies aiming at establishing inter-municipal cooperation. The research question is thus: *"Which forms of inter-municipal cooperation can capitalize on a polycentric settlement system following the dismantling of the socialist centralized governance system"*. The research question problematizes the transition from a centrally planned administration to various but partial forms of cooperation under post-socialism. The extent to which these forms of cooperation coalesce into a polycentric urban region depends on the kind of strategic action field (henceforth referred to as SAF) that is established among municipalities (Fligstein & McAdam, 2012). Strategic action fields are "meso-level social orders where actors (who can be individual or collective) interact with knowledge of one another under a set of common understandings about the purposes of the field, the relationships in the field (including who has power and why), and the field's rules" (Fligstein & McAdam, 2011, p. 3). Strategic action fields are historical processes, undergoing changes between different field states, such as emergence, field stability, episodes of contention and crisis and field re-emergence (Fligstein & McAdam, 2012).

We interpret the transition from a centrally planned to a decentralized administration in the study region in

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terms of SAF theory. This transition offers an opportunity to observe what happened to regional cooperation after the self-governance functions were restored to municipalities after 1990. To what extent was self-governance used to develop forms of inter-municipal cooperation and, if so, to what extent did they resemble a coalition or a hierarchy?

2. The emergence of inter-municipal cooperation in a post-socialist and polycentric context

The area where the establishment of inter-municipal cooperation is analysed has at least two specifics: it is a post-socialist space and at the same time a polycentric region. The post-socialist space is specific for the significant shift in its historical development. Following the move away from the centrally planned economy and the return to autonomous self-governing municipalities, the case offers almost laboratory conditions (in the sense of no previous history) for studying a completely new attempt to establish cooperation between municipalities, once they became the makers of their own municipal policies.

The study area also meets the criteria of a polycentric settlement system, which is characterized by a relatively equal position of individual settlements in the region. Our case thus has relatively conflicting prerequisites for inter-municipal cooperation. While a polycentric region with a greater number of (spatially) close and (population) comparatively large settlements establishes at least a theoretical prerequisite for easier inter-municipal cooperation, the post-socialist experience based on a centrally planned economy creates a prerequisite for more complicated inter-municipal cooperation.

2.1. Inter-municipal cooperation in the post-socialist space

Inter-municipal cooperation (IMC) refers to the voluntary cooperation between otherwise independent municipalities in fulfiling obligatory or voluntary tasks and providing public services (Lintz, 2016). IMC has the capacity to give rise to more effective decision-making, communication, exchange of information, and trust building between municipalities and society in general (Furmankiewicz, Macken-Walsh, & Stefańska, 2014, p. 348). IMC can take the bite out of yardstick competition and thereby generate additional opportunities to extract political rents (Di Liddo & Giuranno, 2016). However, its definitions and supposed benefits are derived primarily from the experience of Western countries, including Spain (Bel & Costas, 2006; Bel & Mur, 2009), France (Frère, Leprince, & Paty, 2014), Germany (Blaeschke & Haug, 2018), the United States (Warner, 2004) and Japan (Baba & Asami, 2019). The following 4 themes are the dominant research themes of the IMCs studied in Western countries:

(i) *impact on public spending* (Allers & De Greef, 2018; Baba & Asami, 2019; Bel & Costas, 2006; Bel & Warner, 2015);
(ii) *impact of population size* (Bel, Fageda, & Mur, 2013; Bel & Miralles, 2003; Zafra-Gómez & Muniz, 2010);
(iii) *areas of cooperation* (Bergholz & Bischoff, 2019; Eyþórsson, 2019)
(iv) *deegree of institualization IMC* (Pano Puey, Magre Ferran, & Puiggròs Mussons, 2018)

Although IMC research in the countries of Central and Eastern Europe is significantly under-represented compared to the Western states (Swianiewicz & Teles, 2019, p. 123), there are studies describing the specifics of IMC in the post-socialist space. These are almost exclusively national case studies such as: *Poland* (Fałkowski, 2013; Furmankiewicz et al., 2014), *Czech Republic* (Sedmihradská, 2011, 2018; Soukopová, Ochrana, Klimovský, & Mikušová Meričková, 2016), *Slovakia* (Klimovský, 2010; Kluvánková-Oravská & Chobotová, 2006), *Lithuania* (Macken-Walsh, 2010; Macken-Walsh & Curtin, 2013), *Romania* (Marquardt, Möllers, & BucHenrieder, 2012), *East-German states* (Kauffmann, 2016). If some comparative studies already exist, they are limited either to a comparison of only two states (e.g. Furmankiewicz & Slee, 2007, *on England and* Poland) or to cross-border cooperation of higher territorial units (national, international, regional) (Harrison & Growe, 2014a, 2014b; Zimmerbauer, 2014). There are very few studies comparing or linking IMCs across the Eastern and Western Europe (Swianiewicz & Teles, 2019; Teles & Swianiewicz, 2018). This paper responds to this deficit and brings new knowledge on how the post-socialist context shapes the emergence of IMC.

We assume that the mechanisms of IMC emergence in the post-socialist space are different those outside of it. Except for the very general differences between Western and post-socialist countries identified on the example of the Barents region – the standards of living, language and culture, religion, history and political and economic traditions (Zimmerbauer, 2014), mainly three differences in the literature can be identified: i) *a specific time delay*, ii) *the remains of a hierarchy after a centrally planned economy* and iii) *the level of trust in society*.

In the context of a *specific time*, a kind of alochronistic delay (Bevernage, 2016; Challand, 2009) of post-socialist countries behind the non-socialist countries has been

most often observed (Osman, Frantál, Klusáček, Kunc, & Martinát, 2015). Inter-municipal cooperation in Western countries has a history of many decades (Eyþórsson, 2019, p. 21). In the Czech Republic the first form of IMC was enshrined in legislation in 2000 (Law on Municipalities – Sedmihradská, 2018, p. 156). Of course, post-socialist countries have a history of IMC, but it is a different history, a history of hierarchically organized IMC, not a history of voluntarily negotiated coalitions. While the situation of non-socialist IMCs could be described as "strategic spatial planning" or "hybrid regionalism" (Ziafati Bafarasat, 2016; Ziafati Bafarasat & Baker, 2015;, 2016), the circumstances of post-socialist IMCs were rather those of "virulent localism" (Visser, 2004).

The second specificity of the post-socialist experience with the IMC is the continued *importance of hierarchical relations in society*. Although the hierarchical structures of the centrally planned economy and centrally managed territorial units have been significantly downsized, they have not disappeared. New reciprocal horizontal structures have been created but they exist alongside remnants of old hierarchical structures (Furmankiewicz et al., 2014, p. 348). The regulatory processes of the former command and control economies of post-socialist countries can be characterized by closed, unidirectional decision-making, excluding all those who are not members of elite political structures, rejecting constructive criticism which might have indicated system change (Kluvánková-Oravská & Chobotová, 2006, p. 222). Since IMCs are a radical departure from the centralized state (Hooghe & Marks, 2003, p. 241), post-socialist states had a problem to incorporate them. IMC assume respect for diversity, while a centralized government with a hierarchical governance structure is not well suited to accommodate diversity (Hooghe & Marks, 2003, p. 236).

This is related to the third difference, namely the *level of trust in society*. The literature most often describes the low level of trust in society as a result of the lack of transparency in the centrally planned economy. The former regime, represented by massive state interventions, state monopolies and quasi-total control over all actions – resulted in a dramatic decline of trust in formal institutions (Chloupková, Svendsen, & Svendsen, 2003; Murray, 2005). Totalitarian regimes destroy the social capital of society. Despite the reciprocal relationship between trust and cooperation (Brehm & Rahn, 1997; Putnam, 1993), the higher dynamics of membership in IMC and spill-over to other areas of cooperation (Swianiewicz & Teles, 2019, p. 130), the institutional environment of post-socialist states is described as weak, fragmented, untrustworthy. For example, Swianiewicz (2011) describes unclear decision-making procedures, which are also also less transparent, ambiguous answers to the question as to who is in charge, how budget control is regulated, and how local councils and citizens are informed about decisions. Kluvánková-Oravská and Chobotová discuss the widespread lack of communication between key actors, when trust among them is so reduced that even powerful policy incentives (financial or institutional) are not enough to motivate joint actions (2006, p. 230). Sometimes decision-making allows the development of power games, in which individual interests overcome the public ones. Actors can behave strategically to achieve powerful positions to control information flows and shape ongoing processes. On the contrary, those in weak positions either show a lack of interest and apathy or engage in opportunistic behaviour (2006, p. 237). IMC in a post-socialist context is thus characterized by hierarchical governance relationships, a lower level of trust in one's partners, biased exchange of information, and an overall competitive atmosphere. In the Czech context, IMC is often the result of higher-level government stimuli and financial support rather than bottom up voluntary initiative (Sedmihradská, 2018, p. 167).

The post-socialist space thus offers an interesting context in which to observe how the autonomous self-governing functions of municipalities can be marshalled towards inter-municipal cooperation or, alternatively, what prevents this from happening (Osman et al., 2015).

2.2. Inter-municipal cooperation in the polycentric urban region

As suggested by Kloosterman and Musterd (2001, p. 624), the current theory of polycentric settlement structure is at the stage of coexisting partial concepts and interpretations. Polycentricity acquires different meanings and contents within different areas of research or professional practice, and hence polycentricity has become a "stretched concept" (van Meeteren, Poorthuis, Derudder, & Witlox, 2016). In urban planning, for example, polycentricity is viewed as an instrument of strategic spatial planning (e.g. Bailey & Turok, 2001; Meijers, Hoekstra, & Aguado, 2008; Schmitt, 2013), while social and economic geographers understand polycentricity as an analytical model illuminating the spatial changes in contemporary cities (e.g. Riguelle, Thomas, & Verhetsel, 2007; Veneri, 2010). For the European Commission, polycentricity is a spatially balanced form of regional development (e.g. Davoudi, 2003; ESPON, 2014; Faludi, 2005).

Even if the positive impact of polycentric urban systems on overcoming territorial disparities has not been proved (Malý, 2016; Meijers & Sandberg, 2006; Veneri &

Burgalassi, 2012) and actual spatial developments are opposed to polycentricity in some regions (Mulíček & Malý, 2019), polycentric development is widely seen as desirable path.

Key European documents concerning spatial planning ESDP (CEC, 1999), the Territorial Agenda of the EU and of the EU 2020 (EU Ministers responsible for Spatial Development, 2007, 2011) largely understand polycentricity as a normative concept offering solutions to some problems of uneven or unbalanced territorial development, and supporting growth of Europe's competitiveness as a whole. Polycentricity should help avoid further excessive economic and demographic concentration into growth poles. However, polycentricity exhibits a high degree of "scale-dependency" and as such acquires different performance characteristics at the European, national or regional levels (Taylor, Evans, & Pain, 2008; Vasanen, 2013)[1].

Even of the concept of polycentricity applied in the research of settlement and regional systems has not yet been fully theoretically settled, research on its methodical and conceptual aspects has reached a certain level of saturation (Malý, 2016). It is thus possible to evaluate the alleged benefits of polycentricity (Burger & Meijers, 2012).

At the regional level, which is the focus of this research, polycentric development means a spatial development strategy in which regional polycentric urban systems function as territories where the small and medium-sized towns and their inter-dependencies form important hubs and links, also connecting rural regions. More polycentric structures provide for a better distributed growth in the long run (CEC, 1999; ESPON, 2014). Polycentric urban regions or PURs (see Parr, 2004), exhibit economies of scale (larger agglomerations) while minimizing the costs of agglomeration diseconomies which are typical for monocentric urban forms (Bailey & Turok, 2001). PURs should enhance regional economic performance, support territorial cohesion and ensure environmental protection (Lambregts, 2009; Parr, 2004). As Bailey and Turok (2001, p. 698) state, PURs "promote the advantages of stronger interaction between neighbouring cities to develop specialized and complementary assets, while avoiding large-scale urban sprawl and destructive territorial competition". More specifically, PURs are spatial-functional configurations that do not suffer from extensive economic competition, high land rents and wages, overburdened infrastructure, traffic congestions, density-related pollution, lack of reserve areas or degradation of agricultural land caused by uncontrolled urban sprawl. On the other hand, PURs should provide a large supply of labour, knowledge spillovers, economic clustering, low transport and infrastructural costs stemming from shared public policies, sharing of common facilities and services, balanced complementarity of centres and more efficient management of shared public spaces.

From a morphological perspective, PURs are usually attributed with suppressed hierarchy of individual urban nodes (Davoudi, 2003; Pumain, 2011). From a relational viewpoint, it is a bottom-up grouping of towns distinguished by non-hierarchical, reciprocal, and horizontal relationships (Capello, 2000; Leitner & Sheppard, 2002). They can establish functional self-contained regions (Beyhan, 2019). The economically relevant functions are evenly distributed in such a system or some kind of inter-urban division of labour develops (Kloosterman & Musterd, 2001; Meijers, Waterhout, & Zonneveld, 2005).

Next to the structural perspective, the institutional approach to polycentricity stresses new forms of territorial governance, public-policy interventions, multilevel decision-making, and co-operation between different stakeholders (Albrechts, 2001; Finka & Kluvánková, 2015). As nation-wide governance has become more complicated and organized through multiple jurisdictions, specific systems of institutional integration and political co-operation has been conceptualized as polycentric governance (Finka & Kluvánková, 2015; Ostrom et al., 1961). According to Ostrom (1999), the resulting polycentric governance system should be a platform providing significant independence to implement rules within a circumscribed scope of authority for a specified territory.

Although the field of polycentric governance is well-rooted in political science, its relation to the structural perspective of polycentricity is still weak (van Meeteren et al., 2016). This is surprising given the fact that spatial organization of territories is directly associated with the public organization of (polycentric) political systems (Ostrom et al., 1961). Broadly defined polycentric governance is narrowed here down to inter-municipal cooperation, which can be considered as a stepping stone to the effective "polycentric" public-policy (Malý, 2019).

Although the PUR is "regarded as a desirable organizing framework for public-policy intervention" (Parr, 2004, p. 232), these advantages can be achieved only when the actors involved develop cooperative relationships and identify the fields where the shared policies become advantageous in the governing territories concerned. To utilize PUR's advantages, it is essential to develop effective forms of cooperation and joint policies, collectively referred to as a "regional organizing capacity" by Meijers and Romein (2003). This organizing capacity is not given a priori. It is rather a social process through which social actors seek to delimit a specific field of action – that is, a specific configuration of inter-

municipal cooperation – sometimes against resistance from existing organizations or actors.

3. The interpretation of polycentric post-socialist cooperation as strategic action fields dynamics

The reasons for the existence of a given field – such as a Polycentric Urban Region – need to be sought in three directions (Fligstein & McAdam, 2012). First is the history of the fields preceding a given PUR, which means to explain the relationships and elements out if which a given field is likely to be built. Second are the categories of actors and their reciprocal positions in the emerging (new) field. The third point of attention is the external field environment which shapes the relationships within the PUR and gives it more (or less) coherence.

According to Fligstein and McAdam (2012), the (national) state is a major catalyst of field formation. They argue that "the modern state is a set of strategic action fields that claim to make and enforce authoritative rules over a specified geographic territory" (Fligstein & McAdam, 2012, p. 68). This can also be said of the socialist states of Central and Eastern Europe, which have managed to establish an impressive web of state institutions, all under one centre of command, in a matter of a few decades (Domański, 2011; Myant, 2003; Smith & Timár, 2010). Urban policies and housing were part and parcel of this process, especially because all socialist countries and Czechoslovakia had to tailor their urban development and growth to the requirements of the socialist economy (Enyedi, 1996; Lux, Sunega, & Katrňák, 2013; Stanilov, 2007; Zarecor, 2011).

The resulting field organization was straightforward: the planning committees laid out their urbanization plans, which had to be implemented by the individual towns and cities. There was little space for local action, as all the resources (both economic and symbolic) were concentrated in the hands of the state. The development plans of individual municipalities were subordinated to the all-powerful imperatives of industrial development (Csaba, 1982).

The wide-raging changes following the 1989 revolution brought these relationships of dependency to an end. What emerged following the collapse of central planning were a number of individual municipalities that were confronted with two contradictory issues. On the one hand was the newly found "freedom" to devise their own development initiatives, with no interference from any superordinate field. The other issue was their relative lack of internal resources for development. The flow of resources from the centre to individual municipalities was cut once they failed to be part of the organizing logic of the central planning system. In Fligstein's and McAdam's (2011) terms, what followed after 1990 was a collapse of urban planning as state policy. The field entered a crisis period and was replaced by some temporarily disorganized social space in which individual municipalities began to discover the potential and limits of endogenous development but also the possibilities of voluntary cooperation.

Self-governance came, however, with a new set of challenges. The return of democratic rule and its formal correspondent – periodic and free elections – showed that municipalities were not only players in a broader (regional) field. Instead, each municipality can be viewed as a micro-field in itself (Fligstein & McAdam, 2012), with actors (political parties and citizens) establishing alliances to advance shared interests at the sub-local level.

To return to the individual municipality level, establishing cooperative relationships among municipalities takes place – in generic terms – through what has been called "emergent mobilization" (Fligstein & McAdam, 2012, p. 91). According to Fligstein and McAdam (2011, 2012), this process begins once two or more actors recognize a new opportunity that can influence their mutual interests. In the case under study, this opportunity was the existence of a spatial arrangement from which several towns could benefit, provided they reach agreement on several key issues. One issue is a common definition of the stakes of the field: is it possible for individual towns to achieve together specific objectives that each of them cannot achieve by itself? The second issue is the quasi-general recognition of a set of actors with stable roles in the field (Fligstein & McAdam, 2012). In a polycentric arrangement, the towns are similar in size and power and hence are expected to create a flat, non-hierarchical cooperative structure in which each member has (roughly) equal rights and privileges. The third issue that towns need to agree on are the acceptable rules of action in the field. The question is whether the towns will strike the same sort of balance between actions oriented to each towns' internal affairs and those that are devoted to the emerging forms of inter-municipal cooperation. The fourth issue is a broad interpretive frame that should guide actors in understanding what their partners are doing. Creating such a frame does not happen spontaneously, yet its emergence is essential to stabilize the emerging field (Fligstein & McAdam, 2012).

While it is true that the collapse of central planning has left a vacuum in its wake in terms of national urban policy, several new regional and national instruments have emerged over the last two decades (Horák, 2007). To the extent to which all these conditions are aligned,

the individual towns are likely to create new organizational forms (agreements, projects etc.) to sustain their collective action. Identifying the appropriate organizational vehicle for cooperation (Fligstein & McAdam, 2012) is often a trial-and-error process as this article will show.

To conclude, SAF theory enables an understanding of inter-municipal cooperation as a process occurring through the interactions and negotiations of comparable municipalities in fostering a common set of values and rules for action. On the other hand, each municipality is a field in itself. Its capacity to interact with other fields will be depend on the agreements reached at the level of contending municipal actors. The emerging field of inter-municipal cooperation is certainly newer than the micro-fields represented by each individual town and the macro-fields of regional or national administrations. Sandwiched between these two, the inter-municipal field needs to claim a space for itself, possibly against competing claims from these pre-established fields, while also taking advantage of their superior resources.

4. Methodology and study area

Corresponding in terms of morphological and functional features with the nature of a polycentric region, the territory of the eastern part of Pardubice region (Czech Republic) was chosen as the study area for a more detailed analysis of the intermunicipal cooperation in a polycentric settlement system. Using standard methods for evaluation of polycentricity (rank-size distribution, primacy, reciprocal interactions), this region has been categorized as polycentric by the POLYREG project (supported by the Ministry of Regional Development) and also by studies on the Czech national and regional settlement systems (Malý, 2016; Seidenglanz, 2010).

The selected region comprises ten towns, none of them dominant. The study area represents a system of small urban settlements of a lower functional size without the close presence of a strong core. The towns also represent micro-regional employment centres that sustain more than 1,000 occupied positions and are simultaneously centres of at least one major work commuting flow from another municipality (Sýkora & Mulíček, 2009). The balanced size structure of the major residential units is also supplemented by a relatively high level of functional integration. The interdependence of the urban centres is illustrated by intense social and economic relations that do not create traditional hierarchical subordination of individual cities, but rather a system of horizontal relations. For illustration, daily commuting was chosen as an indicator of the relational nature of polycentricity (Figure 1).

We evaluated the level of mutual interaction between the individual towns in the region. Using the the level of reciprocal work-commuting flows proposed by the POLYREG project (CRR MU, 2009), we calculated the reciprocal component[2] of interaction between the centres in the eastern part of the Pardubice region, which reaches almost 75 %. About three quarters of work-commuting trips are mutually directed, which is above the national average. Hence, the region is characterized by a functional network of commuting relations that suggest a non-hierarchical arrangement.

Besides the morphological and functional features of a polycentric region the chosen region also has a specific historical experience, which justifies the choice of this case to illustrate the establishment of a polycentric urban region field. The whole study area is a part of the Czech Republic, a country that experienced over less than two decades the transformation from central planning (until 1989) to autonomy and self-government. The Czech municipalities enjoy separate competence, which means independent self-government such as the creation of their own development program, management of their own property or establishing cooperation with other authorities. Conversely, the delegated competence is a deconcentrated state administration entrusted to municipalities. They use their own budget for realization of separate competence and receive contributions from the state budget for the realization of delegated competence (Kadečka, 2003; Nunvářová, 2006).

The municipal government in the Czech Republic was renewed in 1990 and its responsibilities include, for example, nursery and primary schools, volunteer firemen or municipal police or local ordinances. By the end of 2018, there were 6,258 municipalities in the Czech Republic, with one of the smallest average population sizes in Europe. In 2003 some municipalities were assigned the status of municipalities with authorized municipal authority (MAMAs) and municipalities with extended powers (MEPs). For example, 393 MAMAs provide population registers and building permits while 205 MEPs give out identity cards and passports (Grospič, 2008). Among the possibilities of inter-municipal cooperation in Czech Republic are voluntary associations of municipalities (VAMs) or local action group (LAGs) (Sedmihradská, 2011, 2018).

To answer the research question, authorities of all ten towns of the area were approached in January 2011. We spoke with the municipal authorities whose competence covered the subjects of regional development and strategic planning. The respondents were most often the

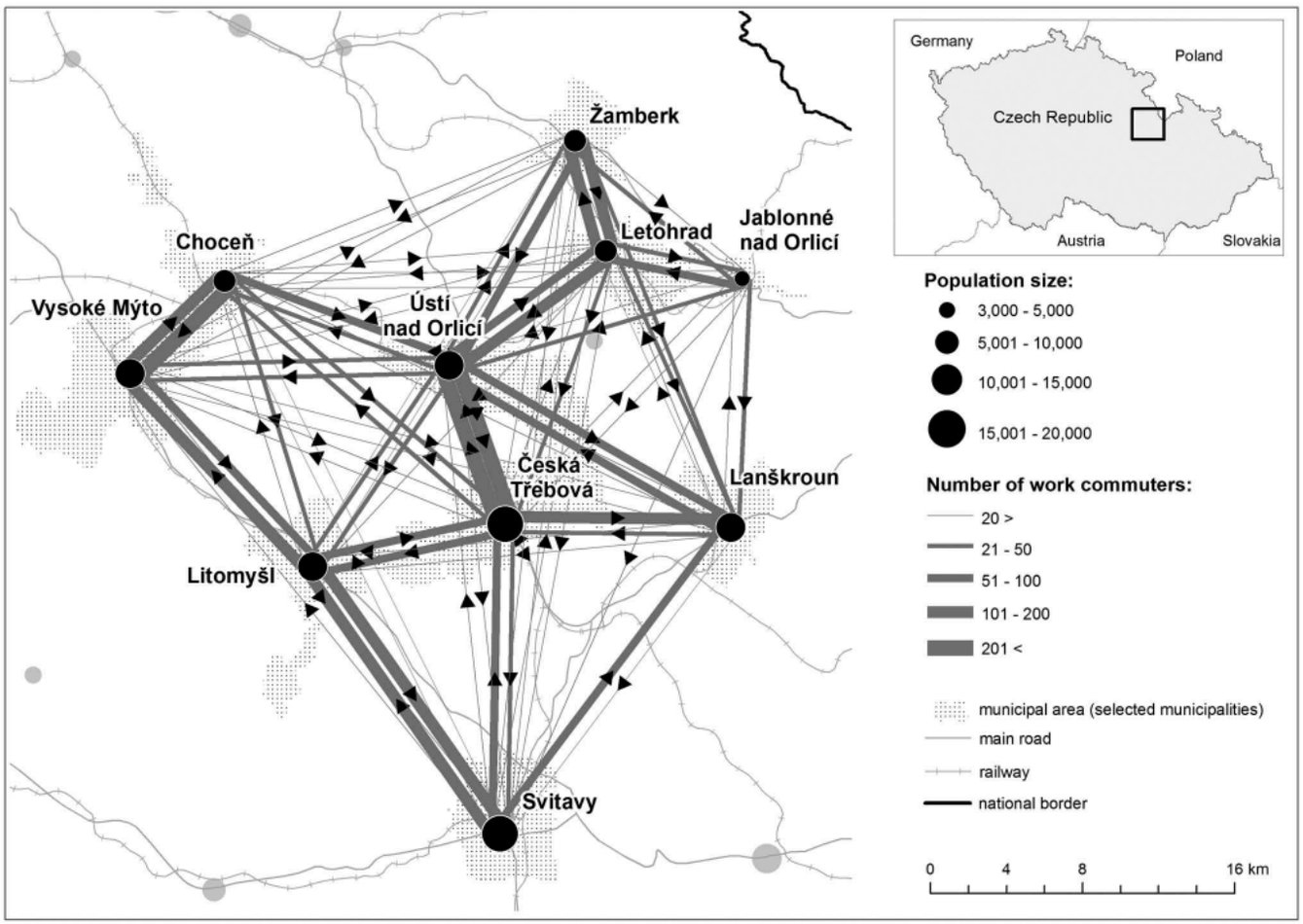

Figure 1. Work commuting flows within the region of Eastern Bohemia in 2011.
Source: Czech Statistical Office (2014); processed by the authors.

heads of the local development department, regional development department or territorial planning department. Deputy mayors or mayors were approached, when a municipality had no such department. Meetings took place with representatives of eight out of ten surveyed cities (the exceptions were in Lanškroun and Letohrad). All communication partners were male. Semi-structured interviews were chosen as the primary method of data collection. The interviews were recorded with the prior permission of the respondents. Each interview started with a generally formulated query about the cooperation with the neighbouring towns and then followed a set of predefined topics: which projects have been implemented in cooperation with the neighbouring towns; which issues would be advisable to coordinate with the neighbouring towns; what role is played by the county, municipal associations, or local action groups in the mutual cooperation; is there a discussion platform for meeting representatives of individual cities; what are the most serious obstacles to inter-municipal cooperation, etc. The interview length varied between 30 and 60 minutes with an average lenght of 46 minutes. The recordings were transcribed and analysed using the Atlas.ti software following an inductive and interpretive approach. The main results of the analysis are described in the following section. The individual communication partners were anonymized and their statements refer only to the individual towns of the study area. As a possible limitation of the data collection, one cannot be sure that the collected data reached saturation. Given the long time since the data were collected, a follow-up checking of saturation was not feasible.

5. The establishment of inter-municipal cooperation

The empirical section of the paper is based on the analysis of eight interviews with the representatives of the towns. The aim is to trace the establishment of a meso-level strategic action field of inter-municipal cooperation, distinct from both the micro-fields represented by each individual town and the macro-fields of regional, national and EU-level administration. Inter-municipal

cooperation becomes effective to the extent that its promoters manage to establish a relatively autonomous field in which collective solutions to common challenges are sought.

The first part of this section focuses on the ways in which representatives of towns justify the need for cooperation between local self-governments. Second, it deals with the most often thematized obstacles complicating this mutual cooperation and finally it focuses on the gradual gaining of experience with inter-municipal cooperation as part of an emerging field of IMC.

The gradual establishment of cooperation is described through four strategies of field formation, derived from the interpretation of the collected data: point projects, emerging border areas, connecting projects and joint territory management stage. The stages do not represent a precisely datable succession of periods, but rather a process of progressive experimentation, in which municipalities build strategies for the establishment of inter-municipal cooperation. At the end of the empirical section, the focus will move to the strategies of inter-municipal management of the wider territory in the spatial context of the polycentric territory of post-socialist space. The developments described seem to follow a *sui generis* trajectory, so that while previous findings in the literature support some of our observations, the overall picture appears to be novel. This is enabled by the methodology chosen, which links the micro-scale of actors' experiences with the meso-level of inter-municipal cooperation. In any case the four stages below been inductively derived from interviews with the representatives of the towns by the authors. These stages themselves represent an interesting research output in the form of a conceptual grasp of the process of establishing inter-municipal cooperation.

5.1. Stage one: inter-municipal cooperation: stakes & interpretive framework at odds

The representatives of the municipal governments declared in the interviews the necessity of mutual cooperation among the individual towns. All of them viewed coordinated joint activities as potentially positive, beneficial and progressive. The purposefulness of the cooperation was perceived mainly in the similar sizes of the cities and their comparable roles within the region. The respondents stressed that *"the towns are comparable" or "the issues are identical in these towns"*. The main argument for joint action was to achieve effectiveness in dealing with collective problems. If each town addresses municipal waste treatment, sewage treatment, the maintenance of public spaces, or the development of amenities, some respondents argued, it is usually less effective than if at least some of these issues were addressed through joint action. At this stage, the actors recognize a potential set of common stakes for collective action at an inter-municipal level. This effectiveness most often means economic efficiency and savings in the public budgets of the individual self-governments. However, there were also other reasons for collaboration given by external opportunities:

> "At one time, we considered establishing a three-town camera system, so that we could fit within the required criteria. It is around thirty thousand citizens, or so."
>
> (Municipality of Jablonné nad Orlicí)

The statement above shows that towns are motivated to cooperate in order to meet formal criteria and be able to apply for funding from grant programs. Because certain eligibility criteria for grant money cannot be met by any of the individual towns, together they can meet them and become eligible for funding. The towns are small, they have relatively small budgets and hence require grant funding for infrastructure projects. This means that actors begin to recognize that their collective interests vis-à-vis broader and more resourceful fields, as has also been observed in Western contexts (West, 2007) requires the creation of a new field for action: the IMC field.

In sum, the individual towns are able to define common stakes and take thus the first step in defining the inter-municipal field. These stakes are oriented towards other actors in the same field (similar towns), whereby joint action is defined as cost-effective. They also aim at building a leverage of the inter-municipal field in its relation to external fields (national or EU), which may provide resources for the former.

Despite positive expectations towards joint action and compelling arguments for cooperation, the interviewees also described the difficulties of establishing an IMC field. The reason was, according to the interviewees, that each town is forced to "*take care of itself*", *"go lobby for themselves", "grab its own [opportunities]*". Moreover, such reasoning is not only unsupportive but can literally obstruct mutual cooperation:

> "I wouldn't call it rivalry, I'd say that it is only perfectly natural, it's just a business of sorts, a political business. I just got a job, I just take care of the business, sort of run the town and what I need are some results and, somehow, not to share very much with someone else."
>
> (Municipality of Žamberk)

An analogy between individuals competing for status and wealth is applied *tale quale* to municipalities: one town thus may acquire more than the other, one may be

richer than the other. This attitude is clearly at odds with attempts to create cooperation within a polycentric urban region. What is needed under such circumstances is an interpretive frame that provides a broader argument for cooperation than a superficial agreement on stakes. Yet, this is easier said than done.

The respondents are aware that they need a narrative to bridge inter-town competition. For this, they turn towards the past. Before 1990, the argument goes, cooperation was a matter of fact. Although most of the communication partners themselves did not experience the pre-1990 practice of cooperation between towns, they described it in idealized terms: *"as the predecessors recollected, they were just a big family"*. Another added that *it "was a matter of course in 1990 that the mayors spontaneously met together in informal sessions, exchanged experiences, counselled"*. In those days, it was believed, the towns were equivalent, joint meetings of all the town representatives in the region were held and issues were addressed in cooperation. This image seems to mirror at the inter-municipal level the theory of the egalitarian city, which assumed that socialist cities were free of social and spatial disparities, for example in Poland (Weclawowicz, 2002). The existence of central planning that constrained the *formal* relationships between the socialist state and the individual towns is missing from this picture.

Given that these administrative and informal relationships among municipalities had evolved over several decades (between 1960 and 1990), this framing would appear as appropriate to create a common action frame for cooperation. The problem, however, is that city officials, when talking about co-operation, refer to a period when self-government did not exist, and co-operation between municipalities took place within a clearly structured hierarchy (Enyedi, 1992).

Self-government thus presents municipalities with a challenge. Unlike in the past, there is no overarching structure that can regulate cooperation among municipalities. Self-government emphasizes the decision-making powers of each individual town, but does not provide the cultural tools to build new forms of cooperation. For this reason, it seems, actors used terms such as competition, contest or even fight to describe relationships among municipalities. Other actors recognize how previous practices cannot simply be reproduced in the new context of municipal autonomy: a new environment based on competition rather than top-down decision making obstructs inter-municipal cooperation.

It has been shown so far that the emerging field of IMC has a set of common stakes that actors agree on but it lacks a common interpretive frame. This is because opposing frames appear to be more powerful. These latter frames are another effect of self-government. Within each town, there are different groups that vie for advantage, such a political elites and parties on the one hand and voters on the other.

> "Why does Ústí nad Orlicí have such a tiny small winter stadium and could not have built a larger one? Because the town did not have enough money, but they had to have it, had to have their tiny stadium. Does Česká Třebová have a winter stadium? It does, great! Does Česká Třebová have the ski slope "Peklák"[3]? It does, great! So Ústí nad Orlicí would also like to build a ski slope like "Peklák", because there are people who say it is a pity that Ústí nad Orlicí has no ski slope. Mr. Mayor, you need to build us a ski slope, how come they have one in Česká Třebová and we have none in Ústí nad Orlicí?"
>
> (Municipality of Ústí nad Orlicí)

This suggests that even if the representatives of the municipalities would want to cooperate, they feel compelled by their voters to compete with the neighbouring towns and win in this competition. The quote shows in fact how inter-municipal cooperation is shaped by political competition within cities. The actual locus of competition is thus within the micro-fields of the towns themselves rather than between the towns. As local politicians compete for votes within their constituencies, they need to be seen offering the same level of amenities as those of other towns (Ryšavý & Bernard, 2013). Towns do not compete directly in this case, as residents do not actually consider leaving one town for a better endowed one. The influence of this town-level competition hampers the establishment of an IMC field.

The internal competition led to so-called *point projects* located within the cadastral territory of a single town, involving the creation of civic utilities that were not shared with the other towns (e.g. public indoor and outdoor swimming pools, gyms, skating rings, stadiums, playgrounds, theatres, art galleries). This type of projects did not advance inter-municipal cooperation. On the contrary, it represented a first phase of differentiation between the formerly equal towns, that is, between those who had started to build new facilities and those who had not, even if building was economically inefficient.

> "We have an indoor swimming pool, Česká Třebová has an indoor swimming pool. We build a huge outdoor swimming pool, you build huge outdoor swimming pool, we fund it with, say, 5-6 million to cover the losses, you fund yours with 5-6 million to cover the losses, next to it we build an ice-stadium, you also build an ice-stadium next to it, we fund it to cover the losses, you fund yours to cover the losses.
>
> (Municipality of Ústí nad Orlicí)

This type of reasoning was brought up by the interviewees from all the towns. Financing of the point projects and especially their subsequent operation were difficult due to lack of experience in loan financing and to long-term sustainability issues. Some projects were still significantly burdening public budgets as late as 2011. The problem was not primarily seen in the repayment of the loan for the initial investment, but above all in covering the annual operating costs. This reduced the resources available for new investments. The political competition within the towns thus prevented in a first instance the emergence of the inter-municipal field. This was to be expected given the growing inequalities shaping post-socialist cities (Davoudi, 2003). However, other spatial developments reignited the prospect of an IMC field.

5.2. Stage two: emerging border areas and the spatial framing of cooperation

With advancing residential and industrial suburbanization, vacant development sites in the territories of some municipalities became scarce. This phenomenon affected three clusters in the study area: Ústí nad Orlicí–Česká Třebová, Letohrad–Žamberk, Vysoké Mýto–Choceň. These pairs are sometimes connected via a linear villages (Dlouhá Třebová, Lukavice), form essentially one continuous built-up area. The growing lack of available land in these municipalities placed limits on their further development. The overlap of the built-up areas of towns and villages began to require coordination. With the growing lack of available development sites, the areas on the border of adjoining cadastral territories, unattractive in the past, started to grow in importance. The recognition of barriers to urban expansion and the simultaneous recognition of new opportunities for marginal areas began to bring the self-governments of individual towns and villages to joint meetings. This meant that actors recognized along the borders, which had formerly separated communities, new political-economic stakes emerging at the inter-municipal level.

> *"Solving the housing situation, and I mean in this case preparing the infrastructure for the construction of houses and the like, the town is growing and we begin to merge. Previously there was the border between the territories, and then, on both sides as parentheses, was a kind of dead zone. Today, however, when I look at the development areas, the municipalities Dlouhá Třebová–Česká Třebová are becoming really tightly connected.* […]. *You can see that Dlouhá Třebová is actually directly joining with Ústí nad Orlicí, so in fact we are becoming a single urban unit, despite having three names."*
>
> (Municipality of Česká Třebová)

This illustrates the emerging cooperation between individual self-governments on a specific territorial project. The overlapping of border areas and their growing attractiveness for several municipalities compelled the individual self-governments to work together. Territorial projects on the borders of these conurbations have become a spatial prototype of cooperation between the individual authorities. However, this cooperation was characterized by a low number of participating self-governments (usually two, rarely three) covering a small territorial extent. It was therefore a step, but not a decisive one, in the creation of the IMC field.

5.3. Stage three: connecting projects and the "transport" framing of cooperation

These spatially limited projects did, however, pave the way for more extended forms of cooperation. This took place through connecting projects, most often transportation projects. These included the construction of a single expressway in the study area, including the feeder roads, or building bicycle paths and cross-country skiing paths cross several municipal borders. They can also include the cleaning of riverbeds, amending the quality of surface water, or the construction of flood control measures. Connecting projects are mostly transportation projects that do not divide the towns but interlink them (Malý, 2019).

> "It is easier to reach agreement with these linear constructions that simply cross the borders of the municipalities. But if you take, for example, a swimming pool, it has to be located somewhere in some cadastre. [S]imply put, should the pool be build in Letohrad, it will cost our mayor his head and if it's built in Žamberk, then it will be the head of the Letohrad mayor and if the pool stands in Lukavice, then it's the heads of both of them."
>
> (Municipality of Žamberk)

As connecting projects go through the territories of a number of municipalities and link them together they help define common stakes. Connecting projects reduce competitiveness and foster the learning the "all of us together" thinking. The above-mentioned utilitarian logic of economic efficiency, which was absent for point projects, is singled out by the representative of Ústí nad Orlicí for connecting projects:

> If they had just sat down and said: „Look, how about we build an ice-stadium, you build an outdoor swimming pool, and then we arrange for some transport service linking them." I have no idea whether we could make it work or not, but the way I see it, no one even talks about it like this, and instead it's about beating the others, like: if you have a water slide, we must have a longer one."
>
> (Municipality of Ústí nad Orlicí)

In contrast to point projects, for connecting projects the reasoning is rationalized. The argument for cooperation on connecting projects is thus economic: we would not be able to afford it on our own, but it is manageable in cooperation with a larger number of municipalities (Bel & Sebő, 2019). Also, this argument is repeatedly accompanied by a reference to voters: it allows us to gain something we would not be able to achieve on our own. Because the project connects the territories of several municipalities, it is of the same consequence to all participating self-governments and thus does not contribute to their differentiation, as is the case with point projects. In this case, therefore, the competition within towns is subordinated to the need to cooperate at inter-municipal level[4]. The inter-municipal field thus takes on a flat or non-hierarchical shape.

Connecting projects thus represent an important stage in the evolution of inter-municipal cooperation in the study area, because they allow the self-governments to gain initial experience with inter-municipal cooperation at the regional level. Connecting projects suggest that the field of cooperation at inter-municipal level assumes a non-hierarchical shape but will that be its final shape?

5.4. Stage four: joint territory management

The fourth phase represents the last stage that we were able to observe in the evolution of inter-municipal cooperation in the study area. Here respondents use the present or future tense or the conditional form of verbs. There are statements such as: "*we keep the capacity of kindergartens up*" until another city would develop its own. "*Within a decade it will come to light that*" cooperation paid out. It is an emerging stage, which is already thought of today as a necessary phase for the further evolution of inter-municipal cooperation, but is not yet commonly reported by city representatives. The most often occurring topics are joint municipal waste management, collaboration between the technical services of the individual towns, coordination of the capacity of kindergartens and primary schools, operation of joint security and camera systems, etc. In contrast to the phases discussed earlier, the issues of occupying, using or reusing a territory or its territorial coherence are less prominent. Instead, it concerns joint organization in issues all self-governments need to address and which promise either i) certain economies of scale, or ii) a reduction in the number of new investments in local infrastructures.

An example of the first case is waste management, which every town manages by itself. Waste can be transported to a single collection site, so that it can be dealt with more efficiently in larger volumes and therefore also with the cooperation of a larger number of its producers. Cooperation at this stage, therefore, requires that municipalities agree on a solution acceptable to all interested parties in managing and disposing of waste. Other possibilities were mentioned, for example that one town might specialize in processing a certain type of municipal waste, while another town would process another type (Soukopová & Klimovský, 2016).

> "If I remember correctly, last time was two weeks ago, when the hard frosts set in, we were dealing with the issue of homeless people. So that, simply put, no one would die here. How to do it, when we have a problem offering them any sort of room where they could be taken care of, so that they would not freeze to death, and somehow cooperation clicked in between Vysoké Mýto and Litomyšl, where the municipal police in Litomyšl disposes of a flat where these people can find shelter for a transitional period, say overnight [. . .]."
>
> (Municipality of Vysoké Mýto)

This is an example of cooperation motivated by reducing the number of new investments in local infrastructures. The representatives of the municipalities argued that it is not necessary to build certain specialized infrastructures in all the towns, and also that there is no reason why one town should not offer its premises to another town, if they are available. It turned out that the projects of the fourth phase of establishing inter-municipal cooperation can already draw on the experience from the previous phases. Moreover, they are not so closely connected with territory, they focus far more on mutual coordination or joint management of specific practices, which are no longer considered on the local scale only, but far more often on the regional scale. In this way, the inter-municipal field has defined its stakes in the form of cost-efficient joint investments and its rules of action, by limiting electoral competition and its tendency towards wasteful investments. The IMC field has also gradually coalesced around a political economic interpretive frame that allows for inter-town negotiations and rational/calculating exchanges.

5.5. Methods of joint territory management

This shift, however, problematizes the methods of joint territory management. So far, a number of common practices were implemented rather spontaneously and on a voluntary basis, where one town tried an approach that proved effective and other cities were inspired by it and started to implement it within their territories. Although there is a gradual convergence of both organizational structures and procedural processes of

individual self-governments, it is, however, not a systemic approach to joint territory management.

More systematic and managed collaboration can only be found in the study area between two self-governments. On a bilateral level, these municipalities can not only coordinate certain procedures, but also formalize and partially institutionalize them through regular joint meetings of the municipal boards of two towns[5]. Such activities, however, have no analogical response at the regional level among multiple self-governments. In their explanations on why this is so, however, the representatives of individual self-governments disagree.

There are at least two groups of municipalities that offer contrasting interpretations of this condition. The first group are municipalities of the second level (i.e. municipalities with authorized municipal office) that perform a relatively limited extent of delegated state administration (the Building Office, the Registry Office). They are more accustomed to the hierarchical management of superior government authorities (i.e. municipalities of the third level and regions) and less accustomed to actively creating their own administrative territorial agenda. There are three such towns in the study area: Choceň, Letohrad and Jablonné nad Orlicí. Their vision of coordination of towns corresponds to their experience with coordination of towns within the agenda of delegated state administration, where they expect that regional issues will be taken care of by somebody higher up the hierarchy of government (Bryson, 2008). They are therefore part of a hierarchical field which is organized based on a different logic than the flat organization of the IMC field. They shirk responsibility for any wider cooperation within the scope of their autonomous power. They claim that if this broader regional management does not work, it is a "*a matter of those larger towns*" or "*incompetence of the regional administration*". It is noteworthy that the hierarchical power of the state administration is not binding but nevertheless perceived as strong. Generally, the representatives of all municipalities in the study area agree that closer cooperation between self-governments at the regional level should be managed by someone other than themselves.

The second group comprises municipalities of the third level, placed higher in the hierarchy of state administration, and consists of the remaining seven towns in the study area[6]. Their representatives agree that there can be coordination among towns beyond the state hierarchy. They seek to find a way of organization which would not advantage one town over another but establish mutually symmetrical power relations between comparable self-governments. Such organization, therefore, would not support the establishment of hierarchical relations of the superior and the subordinate, but promote the establishment of horizontal relations.

Municipalities of the third level are sceptical towards the centralization of management in institutions accustomed to hierarchical state administration, both at the level of third-level municipalities or regional administration. As a result, new organizations were set up with different legal capacities, comprising a greater number of self-governments and which are formed with the mission to coordinate a specific issue or topic. Various business companies co-owned by individual self-governments, voluntary associations of cities and municipalities[7], destination companies[8], LAGs[9], etc. were thus founded in the study area. These forms of cooperation solve several of the problems mentioned above and allow to define and subsequently set clear the relationships between individual self-governments according to their own interests. They play the role of organizational vehicles described by Fligstein and McAdam (2012). They allow the smooth functioning of the inter-municipal field along certain dimensions, such as tourism (Šimková, 2012) or human capital (Lysek & Šaradín, 2018). However, since the territorial scope of each of these organizations differs, they do not help to create that integrative institutional environment that would stabilize the ten-member inter-municipal field as a whole. At the same time, the topic of institutionalization of the IMC field gains increasing attention in Europe (Swianiewicz & Teles, 2019) so that developments in the region of study should continue to be kept under observation.

6. Discussion: coordination paradox

Until the third stage, the study area shows to a great extent characteristics of a PUR, that is, characteristics of morphological similarity of comparably-sized cores and characteristics of mutual functional connections. With the fourth stage, it begins to show also the characteristics of an urban network of equal cores based on non-hierarchical integrative relations (Capello, 2000; Leitner & Sheppard, 2002). These urban networks have no backing in the institutional environment and there is no coordination at the level of the whole PUR. The individual urban networks thus begin to emerge in the study area as particular strategic action fields (around municipal waste, CCTV system, common night shelter, etc.). These networks connect different towns, cover different stretches of territory and thus introduce new borders into the study area. Although the study area begins to show both morphological and functional characteristics of a PUR, as well as the organizational characteristics of

urban networks, it is still some distance from the effective application of multi-level polycentric governance (Finka & Kluvánková, 2015), corresponding to a stable and encompassing IMC field.

This creates an interesting paradox. On the one hand, the self-governments of the individual municipalities can ensure unified coordination of a polycentric region, but this is associated with a hierarchical way of thinking that produces asymmetrical power relations between the towns of the region. On the other hand, new legal entities emerge, creating symmetrical power relations between towns but they do not have the competence nor the goal to uniformly coordinate the entire polycentric region. Similarly, in their research of Central Scotland, Bailey and Turok (2001), conclude that the aspects of diverse cultural identity and fragmentation of administrative and political units limit the feasibility of joint planning in the region as a single spatial entity. Olsson and Cars (2011) found for the metropolitan region of Stockholm that the joint interests of individual urban settlements are limited to a small number of mostly connecting infrastructure projects and attempts to modify the local land-use plans for the sake of "higher" regional purposes are not viewed positively.

Instead of a distinguishable inter-municipal field, we find a proliferation of issue-specific fields. Field theory suggests that these individual fields may be effective in one context or another, but their stability is an open question. An IMC field, in contrast, would be the answer to the main question asked by the representatives of the towns: how to ensure the stability of management – similar to that given by a hierarchical arrangement, while at the same time preserving the non-hierarchical relations of urban networks? Clearly, more in-depth and comparative research is needed to explore these highly dynamic processes of inter-urban reorganization.

7. Conclusion

The paper deals with inter-municipal cooperation, or more specifically with the process of its establishment, in a specific spatial and temporal context. Spatially, the context concerns inter-municipal cooperation within a polycentric settlement system. From the temporal point of view, the context concerns cooperation between municipalities in the first two decades following the transition from a centrally planned administration to self-government. This specific context creates an opportunity to study the process of establishing municipal cooperation once municipalities have gained independent powers.

A recognizable field of IMC requires stakes, rules, actors and interpretive frameworks. Stakes are essential in that they keep the emerging inter-municipal field together, such as the rational argument that pooling resources can enable individual towns to draw benefits that would be inaccessible to each town in isolation. But stakes are not sufficient if they are not backed by a broader cooperative framework. In the study area, this framework was an idealized image of past (pre-1989) command-and-control type of cooperation with little applicability to the period of self-government. Instead, we discovered town-level rivalries about which municipality had better public facilities. This prompted us to put a magnifying glass on the political-electoral competition within each town. Each of these micro-fields revealed that competition among local elites prompted towns to develop infrastructures (point projects) that they later found difficult to manage and sustain over the long run. The inter-municipal field looked destined to failure had it not been for an unexpected external influence. As certain cities with smaller and more densely built-up areas began to expand, the border regions began to require coordinated management. This marked the second stage of territorial projects and the real beginnings of the inter-municipal cooperative field. By this time, the field had acquired real political economic stakes, rooted in the real estate market, rather than in fleeting electoral agendas. Even if spatially limited, this stage of inter-municipal cooperation represented a very important experience of mutual coordination and mutual assistance. The third stage of field formation came with connecting projects. These allowed the use of experience from territorial projects within larger areas, in involving a larger number of municipalities and inter-municipal cooperation of a regional dimension. Connecting projects brought a new dynamic among the actors involved: rather than underscoring differences and hierarchies among towns, connecting projects required flat, non-hierarchical relationships among towns.

The fourth phase of joint territory management was characterized by the search for ways of joint procurement of certain services, the coordination of certain services, and the introduction of common processes, systems and organizational structures. For the emerging field, this meant the creation of organizational vehicles to routinize the functioning of the field.

Our research has shown that the conditions for the existence of a polycentric urban region do not automatically imply its functioning as a democratic and effective field of action. Achieving an IMG field requires active experimentation on the part of individual municipalities and this is what our respondents have shown in detail. Historical experiences and political expediencies, spatial developments and economic rationality all play a role in

shaping the form of cooperation that will emerge among the participants in a PUR. Overall, our work shows that the political and cultural aspects of cooperation need to receive added attention, in complementing the structural and functional understanding of IMC in PURs. Developing a detailed analysis of the spatial characteristics of PURs in conjunction with modes of coordination in IMC is a promising path for future research.

Notes

1. On the European level, polycentrism is perceived as supporting alternative centres lying outside Europe's core of the so called "Blue Banana" identified as the dynamic centre of integrating Europe (Davoudi, 2003; Faludi, 2004). In contrast, national or regional dimension of polycentric development is framed by discussions about spatial equity, sustainable relationship between the city and the rural area (Growe, 2012) or about the transformation of hierarchical settlement relations (Meijers, 2007).
2. The reciprocal component is the sum of a number of mutual commuters and its share in the total number of commuters: e.g. for 160 commuters going from municipality X to municipality Y and 100 commuters from municipality Y to municipality X, the total number of commuters is 260. The reciprocal component includes 100 commuters from X to Y and analogically 100 commuters in the opposite direction. The hierarchical component comprises 60 commuters. The sum of reciprocal commuters is then 200 and the share in the total number of commuters is 77%. (CRR MU, 2009; Malý, 2016).
3. The term "Peklák" was originally a local place-name. Nowadays it refers to a ski resort built in the cadastre of Česká Třebová and co-financed by the EU structural funds (EU SROP), Pardubice Region and the Town of Česká Třebová.
4. The need to cooperate can be sometimes a "forced" consequence of the project managed by nation-wide authorities, as it might be the case of the new planned road infrastructure connecting eastern Bohemia with northern Moravia and affecting the region concerned. Although territorial benefits of the planned infrastructure are expected (Maier & Franke, 2019), cooperation of towns at municipal level can be crucial factor in controlling the risks and implementing anticipated benefits.
5. The municipal board represents the executive body of the municipality within the scope of its autonomous power and the board is responsible for its actions to the municipal council.
6. They are Česká Třebová, Lanškroun, Litomyšl, Svitavy, Ústí nad Orlicí, Vysoké Mýto and Žamberk.
7. Voluntary alliances of cities and municipalities (sometimes called associations of cities and municipalities or micro-regions) are associations comprising several municipalities and towns in order to achieve a common goal. They typically arise on their own initiative, not on the order of a superior authority or by law.
8. A destination company is an organization that is charged with coordination and cooperation of tourist service providers within the territory (destination) for more efficient management of tourism in the area.
9. Local Action Group (LAG for short) is a community of citizens, NGOs, private sector businesses and public authorities. LAGs are legal entities built on the principles of local partnerships and for the promotion and development of the rural region.

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Rhythmanalysis and reproduction of space in a brownfield regeneration process: the case of Ústí nad Orlicí, Czech Republic

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ABSTRACT

The article deals with the regeneration of a former textile factory in the Czech Republic, focusing on different types of actors and their distinctive rhythmicity. At least three types of actors with a distinct relation to time can be identified in the regeneration process: NGOs, municipal authorities, and private companies. NGOs tend to think with a long-term scope, municipal authorities have a four-year election period, and private companies plan time in months. The authors explore the question: how is the different rhythmicity of individual actors reflected in the process of negotiating brownfield regeneration in Ústí nad Orlicí, a small Czech town located outside metropolitan areas and development axes? We use an interpretive framework derived from Lefebvre's *The Production of Space* and *Rhythmanalysis* and analyze in-depth interviews with key actors of regeneration. At a general level, interconnections of the politics of time and the politics of space are explored. One of the main findings is that actors use specific combinations of time and space – in the form of slowing-down and speeding-up tools – in regeneration negotiations.

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Introduction

Recently, studies about the processes of regeneration of unused brownfield areas from the perspective of involved actors started to abound (Alexandrescu et al. 2014; Klusáček et al. 2019). These texts explore the roles of various actors and their influence over the process and the results of regeneration. Some of them focus on the values of the involved actors (Rizzo et al. 2015), others study their "value class" affiliation (Glumac, Han, and Schaefer 2015) or social embeddedness (Alexandrescu et al. 2016). Numerous articles analyze the relationship of actors to certain values, such as cultural heritage (Baarveld, Smit, and Dewulf 2018), good governance (Klusáček et al. 2018), landscape quality (Ruelle,

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Halleux, and Teller 2013), environmental sustainability (Alexandrescu et al. 2018) or economic sustainability (Theurillat and Crevoisier 2013). However, most of the texts focus only on the spatial aspect of regeneration, neglecting its time dimension. Works dealing with the temporal aspect either study time efficiency (Bartke et al. 2016), temporary use (Martin, Deas, and Hincks 2019) or coping with time uncertainty (Gross and Bleicher 2013). The relationship of actors involved in regeneration to time, in other words the temporality of different actors, is often left unexplored. Even though brownfield regeneration is often described as time-demanding, works dealing with this problem from the point of actors are rare (for a partial exception see Alexandrescu et al. 2020). In response to this relative gap, our text presents a way of analytically conceiving different valuations of time in a regeneration context in which actors act at different speeds.

At the most general level, the text deals with the relationship between time and space, approaching this issue from the standpoint of urban time-space politics, which strives to connect the urban politics of time and urban politics of space. The study focuses on the regeneration of a brownfield in a small Czech town, specifically between 2010 and 2019, when a former factory area started to be regenerated. This doing of regeneration is viewed through the lenses of Henri Lefebvre's work, namely through his concepts of the *production of space* (Lefebvre 1991) and *rhythmanalysis* (Lefebvre 2004). The choice of Henri Lefebvre's works to analyze brownfield regeneration is not new (e.g. Oakley 2014; Berki 2012, 2017); however, our approach is innovative in using them for interconnecting the politics of time and the politics of space involved in the process (see also Raco, Henderson, and Bowlby 2008). The empirical case we chose – fast-moving developers in a generally stagnant post-socialist context – drew our attention to these timespace intersections and we set out to explore their wider significance. Thus, the article addresses the following theoretical research question: in what way can Lefebvre's work on the production of space and rhythmanalysis be used to analyze the time and space values of actors involved in a process of brownfield regeneration? We use the context of a small town to explore this question because the protracted unfolding of the regeneration enabled us to observe both the fast-moving actors, that are more typical of dynamic regeneration contexts, as well as the slow-moving players, more likely to be found in peripheral, non-metropolitan contexts of small towns. At the empirical level, the text draws on semi-structured interviews with ten key actors involved in the regeneration process and it gives a detailed account of the regeneration process, labeling the key moments which shaped its progress. This goal can be specified by two empirical research questions, which will guide the analysis that follows: first, do different actors have different rhythms and in what ways? Second, do these actors use specific approaches to shape the rhythm of regeneration?

Rhythmanalysis and the reproduction of social space

The interest in interconnecting the politics of regeneration across time and space draws on a relatively trivial assumption that social existence is always practiced in social space and social time (Mendieta 2008, 150). The turn of geography to time itself can be dated back to the 1960s, to the famous Lund School, led by Torsten Hägerstrand (Lenntorp 1999, 2008; Klapka, Ellegård, and Frantál 2020). The beginnings of the political approach can be dated to the 1980s when the concept of a double presence of women was formed within the second wave of feminism. It elaborated on two lives which women live, one of maternal care and love and another of employment, profession, and career (Balbo 1978), with the assumption that these two lives can be non/connected, non/organized, and non/coordinated (Bonfiglioli 1997; Mareggi 2002; Fernandes et al. 2015). Gradually, the perspective of a differentiated social time extended to other time-disadvantaged social groups (Wolch and DeVerteuil 2001). The existence and coexistence of several varied social times made it possible to grasp different time cultures, time habits, time routines, and interrelated time misunderstandings, time collisions, and conflicts.

This is where the work of Henri Lefebvre enters timespace politics with his polyrhythmy and analysis of diverse rhythms (Lefebvre 2004). Rhythmanalysis is used to capture conflicting times, for example, of cyclists (Morhayim 2018), seniors (Lager, van Hoven, and Huigen 2016), migrants (Marcu 2017; Reid-Musson 2018), or tourists (Edensor and Holloway 2008; Sharma and Towns 2016; Antchak 2018). Gradually, rhythmanalysis was connected with intersectional feminist scholarship and launched a debate about intersectional rhythmanalysis (Reid-Musson 2018); nevertheless, it stays limited to the diverse social times of communities, subcultures, or minorities taken individually. Its application to studying stages of varied social times at the level of diverse fields, qualifications, and professions or within political processes is rare. An exception is the analysis of the combination of short- and long-term processes and fast or slow processes within sustainability issues (Gross and Bleicher 2013; Neimanis and Walker 2014) or economic topics (Cooper 2013; Borch, Hansen, and Lange 2015).

From a theoretical point of view, it is interesting to note that Lefebvre's work has often been used to interpret urban interventions, changes, and politics. However, it has always been either from the perspective of time or space – taken separately. Some texts use Lefebvre's concepts to analyze the urban politics of space (Purcell 2002; Oakley 2014; Berki 2017) and others use them to study the politics of time (Borch, Hansen, and Lange 2015; Blue 2019). Interestingly, works proposing to temporalize Lefebvre's spatial concepts or spatialize his temporal concepts have appeared which did not use Lefebvre's own concepts. For example, in dealing with the regeneration of urban space, Monika Degen (2017, 2018) temporalized Lefebvre's *Production of Space*, but she did so

through the *timescape* concept of Adam (1990;, 1998). Similarly, Lefebvre's *Rhythmanalysis* has not been used for time analysis of urban space regeneration. Two types of work can be found using Lefebvre's ideas to interpret this regeneration, but they are either limited to the production of space (Purcell 2002; Oakley 2014; Berki 2017) or analyze the regeneration of urban areas from the temporal perspective, while utilizing other (not Lefebvre's) approaches (Degen 2017, 2018; Degen and Lewis 2020).

Michelle Bastian offered an interpretation of the abovementioned conduct, pointing out that interest in social time and social space is divided among disciplines, with human geographers primarily focusing on the production of social space, and sociologists and anthropologists studying the production of social time (Bastian 2011). Thus, Lefebvre's work has often been used as a source of inspiration thanks to its components rather than as a whole. The challenge to interconnect *The Production of Space* and *Rhythmanalysis* is not new. Eduardo Mendieta, for example, explicitly pointed out that "for Lefebvre, the Production of Space should never be separated from the analysis of the production of time" (Mendieta 2008, 151). This text accepts the challenge and aims to connect Lefebvre's ways of conceiving both the production of time and space, exploring one possible interconnection through the example of the multiple/variegated temporalities of a brownfield regeneration project.

To begin, we will briefly outline Lefebvre's social production of space. For a correct understanding of "social" space, it is necessary to present one of Lefebvre's basic triads: spatial practices, representations of space, and spaces of representation. On the one hand, spatial practices refer to the everyday practices of individuals, such as awakening, washing up, breakfasting, and so on. On the other hand, it means the practices of larger social groups, organizations, or institutions, such as building houses, fixing holes and so forth. These two groups are connected by the fact that they always refer to a concrete material practice, that is, a certain material practicing of space. For us, it is important that in Lefebvre's triad, these practices stand for the material dimension of social space creation, which he calls *perceived space*. It is an artificial analytical category which expresses the immediate perception of the organic, physical, or material aspects of space and separates them from all intellectual constructions of space (Lefebvre 1991, 33–39).

The intellectual dimension of space is expressed by representations of space. *Representations of space* are seen by Lefebvre as the dominant or conventional way of thinking about space. They involve various spatial ideas, thoughts, conceptions, theories, and imaginations – any abstract ideas about space. These mainly concern spatial theories, spatial policies, tools of territorial and strategic planning, maps, and so on. Space created solely by using these varied representations of space is called *conceived space*, and its carriers are planners, urbanists, architects, geographers, and cartographers (Simonsen 2005, 6–7).

While spatial practices can be understood as the expression of the material dimension of social space, representations of space are the expression of the discursive dimension of social space. Lefebvre describes their relationship as dialectic, whereby spatial practices influence representations, and representations of space influence spatial practices.

The third building block of the triad are the *spaces of representation*, and the trialectic comes into full view. Spaces of representation are both material and discursive, that is, they contain both spatial practices and representations of space, but they are not limited to their sum. However, neither should they be seen as antipodes, an antithesis in a dialectic sense. Spaces of representation add something new. Lefebvre calls this *lived space*, which – besides the material and discursive aspects – includes some informal, lived space for societal resistance, revolt, and change. It means space for alternative futures and experiments with uncertain outcome. It means spaces of departing from routines and encouraging instead open searching, negotiation, and the formulation of the new and "untried". While representations of space are nourished only by some elitist groups of "experts" (Butler 2003), spaces of representation are formed by the activities of all those who use them: activists, artists, and writers (Elden 2009a, 590). All these create *spaces* of (alternative) *representation* through their activities (see Figure 1).

With this new dimension, social space is no longer merely material-discursive, it becomes the space of lived interaction (Elden 2009b), which is also the reason why Lefebvre calls it lived space. Lefebvre's conceptual triad of social space

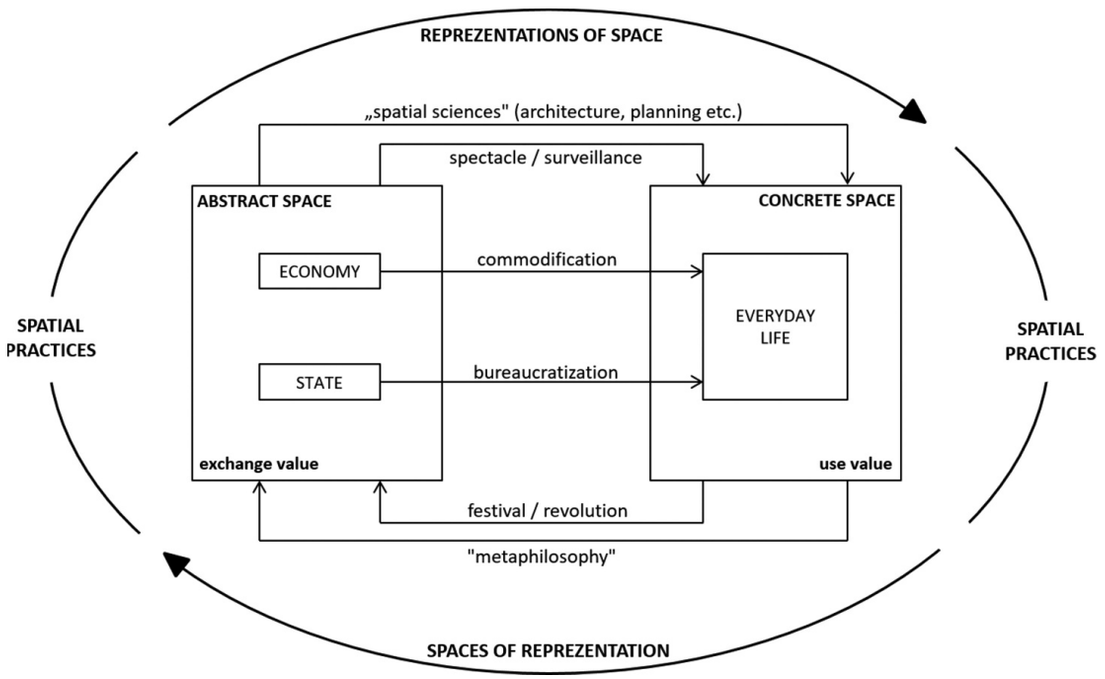

Figure 1. Social (re)production of space. Source: Gregory (1994, 401)

enables us to theoretically grasp the process of regeneration of an unused brownfield, in which every actor works with a different conception of space, thus adopting a different role.

Rhythmanalysis, the second of Lefebvre's works discussed in this paper, enriches the perspective with the temporal aspect and makes it possible to observe the relationship of actors to time, or the temporality of different actors. Besides the book itself (Lefebvre 2004), rhythmanalysis is partially mentioned in other works (Lefebvre 1996, 219–240) and has been applied in manifold contexts since its publication – for example for rhythmic analysis of place (Simpson 2012; Wunderlich 2013), for regeneration of public space (Degen 2017, 2018), for rhythmicity of tourism (Edensor and Holloway 2008; Antchak 2018), for rhythmic analysis of retail (Kärrholm 2009), financial markets (Borch, Hansen, and Lange 2015), for strike occupation (Halvorsen 2015), analysis of urban runners (Edensor, Kärrholm, and Wirdelöv 2018), analysis of immigrant life (Marcu 2017; Reid-Musson 2018), etc. Lefebvre argues that Cartesian geometry significantly reduces the understanding of space, and, similarly, it reduces the understanding of time to its exact measure by clock (Halvorsen 2015, 407–408). For Lefebvre, rhythm represents a unique bridge between the subject-object divide, between consciousness and embodiment, between humans and their environment. Rhythm roots temporal experiences in *corporeality*, connecting it with organic presence. It is one of the rare media interconnecting *body* and *spirit* because it occurs between them. While, on the one hand, rhythm is undoubtedly corporeal, almost biological, on the other hand, it is the basis of purely *spiritual* expressions, such as music and poetry.

From this position, Lefebvre conceives rhythm not as an object of study but as a methodological tool for studying. He focuses on the rhythmicity of bodies, not using the human body as a subject but as the first constituting instance, a standard which can be compared with different rhythms – as a basic metronome for all other rhythms. Lefebvre was inspired by dance theorist and choreographer Rudolf Laban and his work *Eurythmy and Kakorhythmy in Art and Education* and adapted his terms of eurythmy, kakorhythmy, and arhythmy, which express how bodies perceive external rhythms (of the environment or other people) as pleasant or unpleasant (Crespi 2014). Rhythmanalysis thus represents an analytical tool which enables us to conceive of the brownfield regeneration negotiation process through the different rhythmicity of individual actors involved in this process. Using these two of Lefebvre's works makes it possible to understand how the temporality of different actors (rhythmanalysis) is projected into the negotiation process of space regeneration (reproduction of social space).

Methodology and case description

The regeneration process of an unused brownfield was chosen as an example of the reproduction of social space. Via regeneration, a new space is created not only physically, but also socially. For a brownfield to be regenerated and reused,

a sufficiently strong network of actors needs to be established, so that the process can be realized. The specific brownfield was selected on purpose because it can illustrate the full complexity of industrial transformation in a post-socialist society, and it offered an easily accessible field throughout an extended period of observation (2010–2019).

Ústí nad Orlicí in the Czech Republic, where the former textile factory Perla[1] is located, is a small town with fourteen thousand inhabitants, most of whom were trained and employed in the textile industry. In 2009, Perla, as the largest regional employer, closed and the decline in population set in. As a town located outside of metropolitan regions and thus without the possibility to draw agglomeration economies, Ústí nad Orlicí has experienced a decline of the local economy. The town has changed as the daily spatio-temporal routines associated with in-commuters and other stakeholders related to the factory have suddenly ceased to be part of everyday life. Despite existing research that highlights the dynamism and diversity of cities (see e.g. Robinson 2006) or studies devoted to the cultural political economy of small cities (Lorentzen and Van Heur 2012), in general, smaller cities still receive less academic attention. First, because they seem less interesting, even if their dynamics are often unknown, and second because they are far from research institutions usually located in major urban centers (Vaishar et al. 2008; Steinführer et al. 2016). If the peripheral location in the foothills is added to this, as is the case in Ústí nad Orlicí, it is obvious why it received no social scientific attention to date. Still, this is a city which in the period of socialism held the function of an administrative center (district city). Due to its peripheral location, Ústí nad Orlicí was sheltered from the higher interests of global capital. Its search for a new economic identity was protracted and convoluted but this very slow pace of change offered the opportunity to observe how different actors became involved and confronted each other in shaping the direction of change.

Since the regeneration process has not been completed, we decided to study a part of it, beginning in 2010 and ending in 2019. We identified ten key regeneration actors (see Table 1), with whom eleven interviews were conducted.[2] The basic data collection method was semi-structured interviewing, focusing on topics related to the confrontations between different ideas and initiatives within the regeneration process.

The whole process began in 2009 when the textile factory stopped production and the area became a brownfield, at which point the town Ústí nad Orlicí decided to purchase the whole area. The year 2010 was an election year for the municipality, and the town witnessed a radical change in its municipal administration. The newly elected coalition had not considered the Perla regeneration at all in their pre-election debates; they did not consider it a topic, and this is why they were unprepared to take responsibility for it afterward. Due to the shift in the

Table 1. List of interviewees.

Nick	Gender	Age	Name of institution	Type of institution	From	To	Recording
Ruta	F	54	OHGS	private company	2008	2017	01:02:23
Zikmund	M	65	UMPRUM	high school	2009	2017	01:07:18
Boris	M	37	UMPRUM	high school	2009	2019	02:45:16
Přemysl 1	M	50	Ústí nad Orlicí	senior city representative	2010	2019	01:32:50
Zoran	M	56	-	local architect	2012	2015	02:44:29
Prokop	M	40	SPOUSTI	NGO	2012	2016	01:42:09
Silvestr	M	25	-	bachelor student	2014	2016	01:21:16
Matouš	M	33	MS Plan	private company	2013	2019	00:57:18
Mirka	F	32	SVIŽN	private company	2017	2019	01:10:19
Miroslav	M	55	Ústí nad Orlicí	city architect	2010	2019	01:01:54
Přemysl 2	M	52	Ústí nad Orlicí	senior city representative	2010	2019	01:26:59

Source: The authors

political orientation of the town, they disagreed with the intention of the town's previous leadership of selling the area to a retail food chain. This moment can be seen as a symbolic starting point of the analyzed process of Perla regeneration.

> I was appointed the [senior city representative] —and this is an easy date to remember —it was November 11th, 2010. And *immediately afterwards*, I basically *obtained the so-called key to Perla*, and I went there to have a look, and, *for the first time, I saw* what the town had bought and what state it was in. And then we faced a dilemma as to what to do with Perla. And it is necessary to mention what I have been repeating, that *there was a total change in the municipality*, which means a completely new council, completely new perspective, and we started to face questions which we *were not prepared to deal with at all*. (Přemysl, senior city representative, 3. 11. 2017, emphasis added)

Thus, the process started when the new incumbents of the municipal administration, which was not the buyer of the area, became responsible for its new use. The town and its representatives had no experience with the reconstruction of such a large area located in a central part of the town. Since the 1990s, Ústí nad Orlicí has reconstructed streets, roads, and individual buildings, but had no experience with the reconstruction of a three-hectare historical neighborhood. The decision not to sell the area to a retail food chain thus started an unrestrained search for the town's own way of regeneration. Gradually, various local actors joined, such as an architect, an NGO, and an arts and crafts high school (a former textile school). A significant milestone in this process was the announcement of an urbanist-architecture call, which was organized at the turn of 2013 and 2014 by a private company according to the rules of the Czech Chamber of Architects; twenty-four participants from across the Czech Republic entered the competition. The winner was a large architecture firm from Prague. Because of an upcoming election in 2014, the municipality closed a contract with the firm, firstly, to prepare a regulation plan for the whole area, and secondly, to elaborate investment plans for individual buildings. The elections upheld the same municipal administration, allowing it to continue in the chosen direction. The

architecture office became the key actor of the regeneration. After its choice, some local actors – architects and the NGO – left the process and were substituted by external actors from Pardubice (a regional center) or Prague.

Another milestone was the turn of 2017 and 2018 when the former factory halls were demolished; only the administrative building, the electrical substation, and the factory stack were preserved. 2018 was again a municipal elections year, and it was necessary to offer a tangible outcome, which was the demolition. The municipal government again kept its position and continued the process. Until that time, the town had planned to use European funds. In 2018, however, it learned that some subsidies could not be used to finance new constructions, and therefore, other sources had to be found. Finance has dominated the subsequent phases of the project. At one stage, the town opted for a long-term loan; at another, it tried to obtain new subsidies; and at other stages, it waited. In 2019, the reconstruction process was in the phase of financing power-distribution networks and other utilities in the area from the municipal budget, and the first project to be financed from the long-term loan was under preparation: the construction of a leisure center for children and youth.

Different actors with different rhythms

The Perla regeneration process has seen many actors involved. Some of them have been in it the whole time, but others joined only for a short period of time. If we consider the actors from the temporal point of view, there are several differences. In addition to the length of participation, it is interesting to observe the rhythms of the different actors involved and, more specifically, the speed of their rhythms. The regeneration process brought together actors which otherwise would not have had the opportunity to meet. Among them were people from Ústí nad Orlicí municipality or Pardubice regional office; private companies working in architectural or technical-construction design; companies offering advice on subsidies or specializing in management and organization; educational institutions, such as elementary and high schools; NGOs; and the general public. The analysis of their rhythms shows that they transfer the rhythmicity from their own environment into the regeneration process. Each of the actors is bound to a certain institutional rhythm which relates to a specific timeframe and, therefore, runs at a specific speed (Blue 2019). Among the actors with the slowest rhythm were NGOs and educational organizations, namely elementary and high schools.

> What I think is that it basically formed *during the process*. We would never sit and say, 'Ok, and now, what do we think about this brownfield? What do we think should happen to it? Let's tell each other and start working on it.' It was never like this, I would say it was because *some things happened*, and then we said, 'Well, it's worth trying, supporting, being part of', and so on. And only *during the course, during the process*, did

> we *start to form* an opinion of *what direction* it should take or could take. But it was an opinion that had been forming untrammelled in every one of us. And then *we discussed it* among each other, so it *had been developing*. (Prokop, NGO, 7. 4. 2017, emphasis added)

The above mentioned account of Prokop, the chairman of an NGO with no employees shows how the temporal culture of his environment was transferred into the process of regeneration. All activities of Prokop's NGO are performed by about twenty volunteers who devote their time mainly to the organization of human rights film festivals but also various local issues and cases, with the ambition of functioning as an opinion maker and partly as a watchdog organization in the small town. The NGO annually organizes their week-long film festival and several minor public events spread throughout the year. Due to the fact that all of its members have other jobs and work for the NGO on a voluntary basis during their free time, their rhythmicity is not bound to any clearly defined timeframe. In other words, the timeframe of leisure time renders the culture of a very slow time, bordering on a kind of "unbounded time" in which the main values are the nonhierarchical structure of the organization, constant negotiation of positions, and the space to search for new possibilities. When they entered the regeneration process, they instituted a relatively demanding strategy of continuously searching for and negotiating the direction of the process, which is never closed and stays open to future negotiation, thus approximating Lefebvre's lived space (Lefebvre 1991; Berki 2017). Speed and effectiveness are not valued by these actors. Conversely, they emphasize the values of intelligibility, usability, sustainability, and transparency.

Besides this NGO, a similar position is held by the arts and crafts high school, a public school established by the region without the need to generate economic profit. The school relates to the one-year, school year cycle,[3] but the fact that every year is almost the same as the previous and without large disturbances means that the school is one of the most conservative institutions in the regeneration project. Since the 1989 Velvet Revolution, the school has been undergoing a very slow transformation from a textile industry school to an arts and crafts school – today, the transformation is almost complete. The speed of the school must be considered in relation to this thirty-year phase. Among the values it emphasizes is "timelessness", in the sense of long-term value.

> And so, we did some literature *research*, then we walked outside a bit [travelled to some Scandinavian schools] and we said, 'Wow, it's cool.' If someone looks at it *one hundred years* later, they should say it [architecture of the building] matters.
>
> (Boris, High school, 8. 4. 2017, emphasis added)

Recently, the school has specialized in art disciplines, and it nurtures a sensitivity to detail and the right moment, as well as originality, creativity, and uniqueness. It is clear from their accounts that they see the relationship between the speed and originality of a creative act. To create quickly, without proper preparation,

means to create serial, derivative, and mediocre production, while for new, innovative, and original work, you need sufficient time to plan and search for new possibilities. Timelessness, specificity, and uniqueness are values which were mentioned by these "slow" actors involved in the Perla regeneration process.

At the other end of the imagined speed axis, we can find the private companies which joined the project. Among the main ones are two architectural firms, MS Plan and SVIŽN, and a company named OHGS providing consulting concerning subsidies (see Table 1). However, all the private companies focused on profit can be added here. The necessity to generate financial means for everyday working and monthly salaries as well as keep their competition at bay create a specific rhythmicity oriented toward maximum effectiveness and process speed. Some differences could be observed between companies working in the competitive environment of the capital city and companies competing within Ústí nad Orlicí; the pressure on effectiveness within the local competition is much lower than the pressure at the national scale. These companies brought a totally different understanding of time to the process. They value minimizing time spent on specific activities, maximizing the speed, and thus requiring exact time schedules and deadlines to be kept. As has been observed elsewhere, developers and investors often feel that the planning system is too slow (Raco, Henderson, and Bowlby 2008).

> MS Plan. They designed [the school] as a *general high school* at the beginning. They had *no idea* what an art school was even if they had studied some architecture somewhere. But it was as if *it was half-done*. I am not saying *they had time for it*, but they just *simply made a draft*. Many *things had to be finished and thought through in the process* until it fit.
>
> (Boris, High school, 8. 4. 2017, emphasis added)

Boris shows above exactly how this rhythmicity influenced the process of regeneration. MS Plan created design plans for the new high school building, which was to be part of the regenerated Perla. While the school wanted to define the exact parameters of each room, MS Plan "drafted" the first design without any deeper knowledge. Boris acknowledges there might have not been enough time in the initial stage; nevertheless, the company just took the liberty and drafted the building, making a half-finished design. Even if Boris appreciates the whole process at the end, his statement seems to evoke disillusion with the lack of time and the need to hurry. Phrases like "things had to be finished" or "thought through in the process" seem to indicate a possibility of influencing the situation *ex post* rather than being a valued part of the process from the beginning. Moreover, the opportunity to "think through" and "finish" is not unlimited in time; on the contrary, it is limited by a certain time boundary set in advance in the form of a deadline. To develop the "draft" design into a fully

satisfactory design seems to be problematic. In opposition to the value of *timelessness* (i.e. a creation that will last for a long time) which is connected with the slow actors, the fast actors upheld the value of *temporariness*.

> MS Plan *completed* the study. They probably expected their payment for the job, and we, of course, *wanted to continue*, but they, MS Plan, they were *simply done. They had finished*. Well, basically, there were some *deadlines*, but, obviously, this is an *endless process*—they *always* send something, and we *always* comment. But we have sent so many comments that I understand their view; there *must have been* some financial *limit*.
>
> (Boris, high school, 8. 4. 2017, emphasis added)

And somewhere in between these two extremes of slow and fast actors, the municipality of Ústí nad Orlicí oscillated. The town, represented by Přemysl, balanced between the two value poles, sometimes emphasizing finance, speed, and effectiveness, while in other situations upholding the values of tradition, memory, identity, future generations, and, particularly, timelessness (as highlighted in the following quote). The town, meanwhile, had its own rhythm corresponding to a four-year municipal election period, but this period could be extended based on election results. That is to say, the initial period concerning the Perla regeneration ended with the 2010 elections, and since then there has been political continuity, confirmed in the 2014 and 2018 elections. The direction taken by the current administration was corroborated, and Přemysl's party strengthened its position in both elections. Nevertheless, this situation cannot be taken for granted, and the municipality members relate to the four-year period as their timeframe. Therefore, the temporal culture of the town can be described neither as purely slow nor fast (see Figure 2). The municipality has its own rhythm, which sometimes stresses the values of slow actors and, at other times, those of fast actors.

> In this article, I ended with the paragraph about *pride*, and I have a long paragraph there, around half a page, about the event Perla is Alive! and about the Sad Factory fairy tale, how strong it all was, how it touched people's emotions and how it all—for a person like me who has been *living here his whole life*—how it all can return in the sense that we will build the children and youth centre there, then the high school, which relates to the *history* of the former textile school . . . Things get connected. There is a *new generation* here. There are followers. And even if no woven textile is going to be manufactured, there will be footprints of textile and Perla. And I think that these things *can be reaped in ten or twenty years from now*.
>
> (Přemysl, senior city representative, 3. 11. 2017, emphasis added)

The main tools influencing the rhythm of regeneration processes

The different speeds of the actors necessarily lead to time conflicts which arise from different rhythmicities. While the slow actors stress that the regeneration process takes more than a year or one election period, estimating its length in decades, fast actors relate to shorter periods of time, such as months or years. All disputes between actors are framed in their relation to time, with slow actors

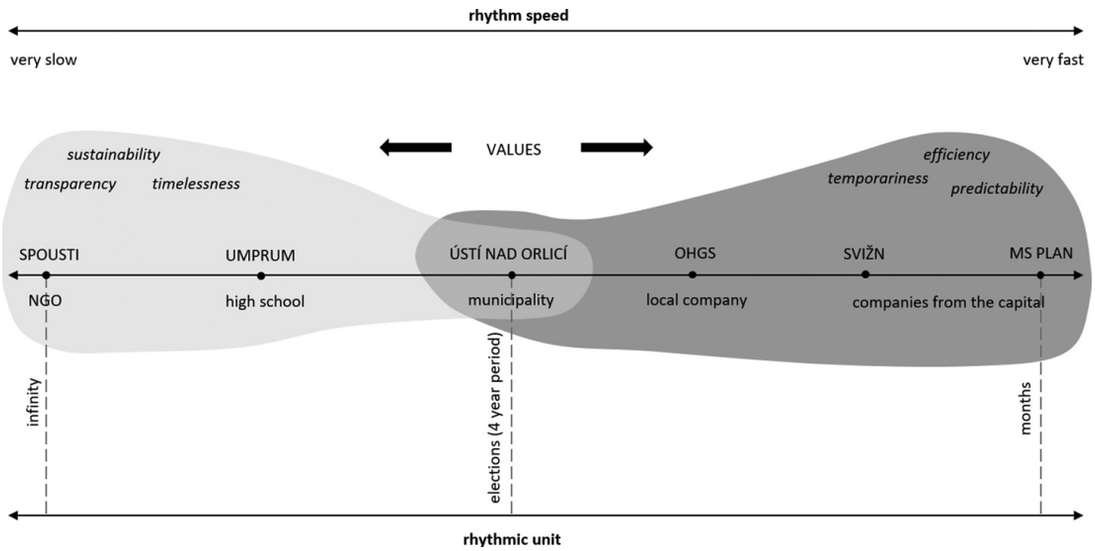

Figure 2. The difference of actors according to their rhythmicity and their values. Source: authors' analysis

trying to slow down the regeneration process, and fast actors trying to speed it up. However, from the analytical point of view, the ways in which they try to influence the process are the most interesting. While slowing-down is mainly achieved through discussion and the decentralization of power (empowering), speeding-up is realized through staging the process within certain time points (pointillism – to be explained in the "speeding-up tools" section) and creating representations of space as abstract space (Lefebvre 1991).

Slowing-down tools

The most important and most basic tool is discussion – open discussion or multilateral open-ended negotiation. The slow actors called for discussion. They wanted to discuss, and they required that the discussion addresses vision, use, method, conditions, potential risks, personal issues, and so on. Discussion for them represented the basic principle for finding the area's new use, as well as the basic framework for the interaction of individual actors. Principles of open discussion guaranteed slow actors a certain level of transparency; they enabled the creation of something new, original, and timeless; and most importantly, secured the public's support. Sometimes, the slow actors tended to interchange the goal and the means, whereby the regeneration became a means only and the actual goal was the discussion itself. Thanks to this, they could ask, "What does the town want to achieve through the regeneration?" or "What problem does the Perla regeneration intend to solve?" Their goal then changed to creating opportunities for discussion about various forms and with various actors. They organized happenings, workshops, conferences, lectures,

documentary screenings, and a Future City Game (with local politicians, local high school students, and the public), and they put pressure on opening the Perla area to excursions and other happenings.

> I have a feeling that people were focusing too much on *what would be there*. And all the *opinion polls*, just recalling that 'What should we put there?' It was always like '*What should be in the Perla area?*', 'What do you want there?' And they were *selecting some options*, what kind of services, what type of green areas, and what we need. But there was no debate going on about what this town needs and what use Perla should be put to when we have it eventually, what *journey to take*, where it *can take us, lead us*.
>
> (Prokop, NGO, 7. 4. 2017, emphasis added)

In his account, Prokop explicitly explains that there are different concepts of discussion. Asking questions does not necessarily slow down a process even if the questions are open. When Prokop calls for discussion, he does not want a mere data collection, an opinion poll, or one-sided communication. He demands mutual communication, dialogue, and negotiation, which are necessarily unfinished, open to the future, and ready to continue in debate, thus connecting current concerns with deliberative planning (Perić and Miljus 2021). Again, we have here the infinite timeframe, where the goal is not any given point, it is the process itself, and what matters more than the goal is the journey one is taking. From the perspective of rhythmanalysis, Prokop and others (see the upper half of Figure 3) do not consider the goal to be a certain point in time, but another process, a further flow, a further happening of things. Discussion as a tool for slowing down the regeneration process thus not only represents a form of negotiation, but a radical challenge to negotiate the journey, or, in other words, negotiate the negotiation. The radicality of their concept of discussion is mirrored by the responses from fast actors (see lower half of Figure 3), which often took the form of objection: "But they only want an endless discussion", "It has been discussed many times already", "People already had their say on this", and so on. The basic conflict stemmed from the different timeframes of actors. While the fast actors considered discussion as only one point (moment) on the way to other points, for the slow, long rhythm actors it meant the search for the way, the journey. Through discussion, they wanted to make other actors search for the journey as well, and thus slow down the whole regeneration process.

Another tool is an effort toward empowerment, that is, a certain decentralization of power. It encompasses diverse activities meant to widen general knowledge about the regeneration process, informing, seeking key actors, engaging the public, and so on. In other words, democratizing the regeneration process. In a simplified way, this tool relies on the premise that the fewer actors there are engaged in the process, the faster the process will be, and the more actors, the slower the process. Engaging more actors thus can slow down the process and address the long rhythm actors' aim to open not just the debate but

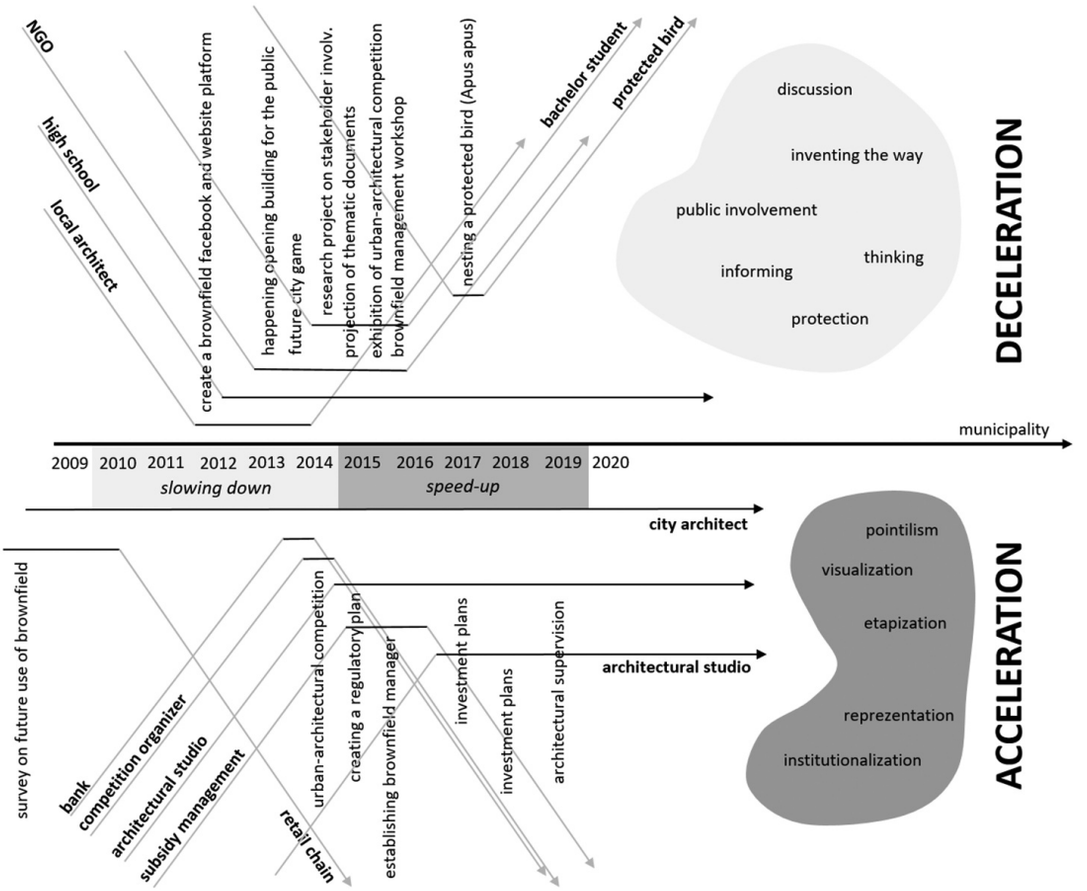

Figure 3. Different actors according to how they influence the rhythmicity of the regeneration process. Source: authors' analysis

the decision-making to the public as well. They want to open processes and create space for published information, experience, and know-how so that the widest possible public can take part.

> And so, I kept offering—in my presentation, I was also still offering *this kind of workshop*, which would evaluate the state of the design, you know. *Maybe the architects* who took part in the competition could be invited, *other experts*, and *part of the public*. It could be interesting, in my opinion, if they tried to *define the contents*, come up with some *scenario, how to proceed*.
>
> (Zoran, local architect, 11. 7. 2017, emphasis added)

Here, Zoran describes the situation after the urbanist-architectural competition which was won by MS Plan. Although the competition had been discussed several times – starting with its call, its form, its organizers; the jury then discussed the designs; this was followed by a big public discussion, in which all the architects further considered by the jury took part – Zoran keeps suggesting another discussion. This would be in the form of a workshop which would evaluate the winning design and would take valuable suggestions from other designs. Again, he stresses the importance of the journey, the scenario, the way to proceed. It seems that Zoran does not consider the

winning design sufficient; he thinks it needs further work. This work mainly concerns the dimension of getting to the final plan for the Perla area. Zoran does not call for a general workshop; he has a clear idea of who should participate: the other architects who took part in the competition, new experts – meaning experts in the process of such a regeneration – and an engaged public. Thus, he wants to evaluate an evaluation after a winner has been announced from among twenty-four submitted designs. In other words, he demands a new distribution of power among other actors, empowering them and decentralizing power, thereby echoing similar calls in Eastern Europe (e.g. Perić 2020).

> And now we're coming to the second, in my opinion, *milestone* when the town got the idea to organize an open urbanist-architectural competition, because it, this open architectural call process, had never been tried. In the past, all new buildings were constructed after choosing between two or three pre-selected architects, but there had never been an open call. And so the town was afraid at first because, for one thing, it costs money, and secondly, there are *conditions prescribed by the Czech Chamber of Architects*. And these conditions, many towns and cities might not like them in the end because, for example, *experts must be the majority on the jury*, and, the municipality—its representatives—sometimes adopt this idea that *we are the ones who should decide things*, and suddenly, they would form a minority in the jury.
>
> (Přemysl, senior city representative, 3. 11. 2017, emphasis added)

Přemysl reminds us that the urbanist-architectural contest itself already represented the same principle, that is, a certain voluntary empowerment of external actors. The municipality opted for the most demanding and transparent way which could have been taken – an open competition under the relatively strict conditions of the Czech Chamber of Architects, and it also chose an external company to run the competition. Thus, they drew two other influential actors into a decision-making process which is normally within the competence of the municipality. According to Přemysl, this step was already criticized by some members of the administration, who claimed it was a political issue of utmost importance which should be decided by democratically elected representatives. The competition itself took six months from the call until the results were announced, but considering its preparation, the time investment was at least one year. During this period, the regeneration process had to stop as the town had to await the results of a jury composed of its representatives as well as external experts, who formed a majority. Even if this step was highly transparent and highly legitimate, and its result was supported both by the experts and the general public, many municipal politicians saw it as a slowing-down of the regeneration process, a delay on the journey to the desired end, an act of eschewing responsibility, and a voluntary delegation of power to actors outside the municipal authorities.

It is clear that both tools for slowing down the process, discussion and empowerment, are mutually related, as a multilateral discussion allowing for a say in a process always entails empowerment; and vice versa, empowerment of new, sometimes external actors is most valued because it opens discussion and enables new inspiration to be drawn from it.

Speeding-up tools

The tools for speeding up the regeneration process can be viewed in opposition to the slowing-down tools. Our analysis identified two of the most frequently used mechanisms, which we named pointillism and representation. Pointillism designates a specific concept of time seen as a set of points (moments), so that "the phasing of development" occurs in terms of "tangible, short-term outcomes" organized around "tipping points" (Raco, Henderson, and Bowlby 2008, 2654, 2660). In other words, slow rhythm actors conceive time as a certain project chain of states, moments, and partial goals to which they relate and which they use to work with time. Time in their conception does not flow at the same speed as time in discussion. It is not created in the process of regeneration but is done in advance; it is planned by setting time schedules and itineraries. It is the time of stops, and it seems not to flow in between individual stops – as if it was teleported between the moments, jumping from one point to another. Its value seems to lie in waiting for a specific moment, awaiting it. Thanks to this point-based conception of time, we speak about pointillism, by which we mean approaching the regeneration process through time conceived of as points. In fact, it may be said that planners see the "picture" of development as a juxtaposition of temporal dots, without any intermediate shades.

> In my opinion, it is *a self-perpetuating thing*. It simply *runs a certain way*, which you know is *determined by some motion, some regulatory plan*, as if it contained *subsequent logical steps* of a kind, and those have to be done. So now it is going to be demolished because it obviously is the next step. And that's it, basically. (Prokop, NGO, 7. 4. 2017, emphasis added)

According to Prokop, this point concept of time is *self-perpetuating* – nothing is being negotiated anymore, and thus nothing new is created. Everything has been defined in advance, the journey has a clear sequence with scheduled stops, and so it does not require any care, invention, or engagement. When nothing is negotiated, nothing gets created, not even time. In Prokop's perspective of time, time does not exist in this process – a point is inherently atemporal, and a point of time is not time anymore. For him, time means flow, openness, negotiation. Deadlines closing certain stages of the process are not here to open, to create space for negotiation; on the contrary, they are supposed to protect the process from negotiation. A self-running thing is a closed,

technical, apolitical matter, which could also be here without any engaged actors. It is simply enough for them to wait for the next stop and control whether they are keeping to the timetable.

> There were these petty details, which I did not like; for example, the MS Plan needed to put a children's playground somewhere. There is the school building, then the cafeteria opposite, and a bit of space in between where you see the cobblestones and cars parked today, and so some greenery was planned—a park. Cool. We will have a park in front of the arts school, a piece of green land. And suddenly, *as if a UFO landed, the* children's playground for the centre. I say, 'What does it mean?' And Přemysl said, '*It's not on the schedule for today. Anyway, it can still change*; he can't deal with it now.' I said we needed to deal with it immediately, also with the headmaster, and they also wanted to as it [the playground location] had not yet been decided at that time. *Well, now it is counted as being there*.
>
> (Boris, High school, 8. 4. 2017, emphasis added)

The pointillist conception of time, as we can see, has an impact on the collaboration between actors. The points in the process time schedule must be kept, not discussed. They are closed to any negotiation. There is no time for it in the pointillist concept of time. An interesting paradox arises in that there is no time to discuss things. Either it is too early to discuss them, or it is too late to consider certain issues. Boris confirms this paradox using the example of the playground, the location of which was at first not on the schedule for discussion, and then it became too late to discuss it, as if the time in between these points disappeared – there was no time to discuss it. Discussion ceased to be an open comparison of arguments, a transparent consideration of suggestions with an open ending; it became instead a presentation of ready-made plans. Which is contrary to how slow actors see discussion with its slowing-down effect. Actually, the pointillist concept of time could be seen as a response to the slow discussion-led concept of time, and its focus on time points can be understood as a reaction to the engagement of new, external actors and a never-ending, sprouting discussion process. A moment (time point) is a counter-reaction to searching for new ways; limiting time by time points responds to the opening of discussion, and the centralization of power responds to its decentralization. From the point of view of fast actors, the regeneration process involved an urbanist-architectural competition, a regulation plan, investment plans, and so on; however, in their interpretation, these were not seen as processes but final products (stops, milestones, partial goals, points).

The second tool for speeding up the regeneration process is the representation of space, namely specific graphic representations in the form of maps, plans, drafts, and visualizations. Graphic representations perfectly fit the needs of the point concept of time. The graphic in the form of a map or plan is to a great extent atemporal; it contains no sequence, no development, no negotiation. It is arranged in purely spatial logic, with only one relation between the phenomena presented – the relation of location, where they are, next to what, how far from – in particular in

traditional or "scientific" representations of space (Dühr 2004). Graphic representations like maps and plans abstract from other types of relations. The winning urbanist-architectural design, the regulation plan, investment plans, or construction documentation are exemplary representations of space located in a kind of fictional timelessness, evoking an imaginary idea of some future time. Concurrently, they structure the process through certain milestones which do not allow for turning back – or only with difficulty. In this way, the representations close a certain field of opportunity, narrowing down future possibilities and thus simplifying decisions about further steps.

> I kind of believed in the competition and trusted it, expecting there would be like twenty suggestions, twenty designs, and the jury would evaluate them, and they would bring up a range of interesting things, and one of these would be selected, and we would know *where to go from there*. So, this is what I thought. And then the moment I saw it, and I took part in the presentations, I started to think that *the way is not described there at all*. How do we get there? How do we reach these nice designs from the point of view of economics or human potential? Only then did I realize that the designs are something that is shown— how it could *look at some point in the future* —and actually, they don't say much *about the way which leads us there*. (Prokop, NGO, 7. 4. 2017, emphasis added)

Prokop's quotation shows that there was no argument between the long rhythm and the short rhythm actors, whether to organize the urbanist-architectural competition, whether to have the regulation plan or not. They all agreed on these steps; they only argued about their meaning. While for the long rhythm actors, they meant a process of searching for the way, for the short rhythm actors, they meant the final products. Prokop admits that he used to favor the urbanist-architectural competition – and actually, it meant a lot to him. He hoped it would show the way to proceed, how to reach the desired goal. And he expresses how disillusioned he was when he realized that the way to the goal was never part of the designs, which were reduced to the result, a final product, a point in future time. Even if he originally saw the competition as appropriate to slowly searching for the way, its result disappointed him. His account reveals an interesting dimension of graphic representations: the fact that they are not set in the logic of a time sequence which determines what is before and what is after. Having learned from this experience, the slow actors demanded a "timing" of further representations. Their questions about how the area will function at night, during torrential rain, in winter when snow needs to be removed, and others were not given time and room for negotiations. The only expression of timing was the inclusion of the regeneration stages into the regulation plan of Perla.

> Yeah, the regulation plan—it's a must, the regulation plan—and then the so-called investment plans, they can make a fortune with it, these *building designs*. He *draws a building scheme and gets 350 thousand* [Czech crowns], yeah? And *it isn't even specific at all.*
>
> (Zoran, local architect, 11. 7. 2017, emphasis added)

Zoran reminds us of another dimension: the atemporality of graphic representations. The fact that they are not connected in time with previous and future events makes them fast to create. A graphic representation is tangible; it can be presented, easily communicated, and universally used. Its inability to express a time connection to other running processes makes it impossible to determine to what extent it reflects these processes. Even if a representation is based on a detailed study of these processes and is closely connected to them, these connections stay invisible. On the other hand, any missing connections to the phases of the regeneration process stay hidden as well. In other words, a tangible and presentable (which is important for the municipality) short rhythm product (which is important for private companies) is created without the rapidity being obvious at first sight. Zoran expressed this invisible production rapidity as insufficient specificity in the representation. Representation thus is an ideal tool to accelerate the regeneration process almost imperceptibly (see Figure 3). This does not mean that spatial representations are hopelessly atemporal, but they require a different thinking, organized around so-called time maps (Rosenberg and Grafton 2010), which was conspicuously absent in the case analyzed.

Conclusion: negotiation of time and space

The Perla case tells an unfinished story of regeneration and highlights specific turning points in the process. Interesting twists occurred, for example, after the municipal elections in 2010, with the urbanist-architectural competition in 2014, or at the turn of 2017 and 2018 when the demolition of the former manufacturing halls had to be postponed due to the nesting of protected bird species. Nevertheless, this case can be conceived at a more general level and related to Lefebvre's (re)production of social space. Rhythmic negotiations of actors involved in the regeneration process do not only create temporal organization, as it could seem, but alongside with it also spatial organization of the whole process. Long rhythm actors – represented by NGOs and the high school in the brownfield regeneration – aim to create alternative spaces, happenings, workshops, conferences, seminars, lectures, and documentary screenings which would open new possibilities and perspectives and make it possible to change the current order of things. In Lefebvre's terms, this means creating spaces of representation, that is, spaces of revolt, resistance, and societal change. On the other hand, short rhythm actors – in this case, mainly architectural offices – focus on creating various maps, plans, drafts, and visualizations, which can be called representations of space. Lefebvre uses this term to designate the discursive level of space – in other words, how we conceive of it from the dominant and conventional point of view, how and based on what concepts we (re) produce it. From this perspective, the most interesting role is played by the municipality, standing somewhere in between the state and the everyday life of

its citizens.[4] It manifests a considerable rigidity close to the state administration, taking part in the bureaucratization of processes. But it also deals with the banal everyday problems of its citizens. In the case of such a small town, its representatives join their fellow citizens at baby showers, school leaving exams, weddings, and funerals. They live in the same town, share the common space. They meet, they talk, they know each other. The municipality is not the state; nevertheless, its everydayness is not the same as the everydayness of an individual citizen. The municipality is responsible for Perla. It makes decisions, organizes negotiations, orders plans, demolishes, and constructs. It changes the materiality of the area. It opens doors, fixes the gutters, and has the rubble removed. In Lefebvre's terms, it corresponds to spatial practices (see Figure 4).

The text shows that during the negotiation of the regeneration process, not only negotiation time is created, but also its space. In other words, negotiation works via asserting different rhythms and space conceptions. However, rhythmanalysis helps us to understand how different rhythms are asserted, but not space conceptions. We should turn to Lefebvre's other seminal volume, *The Production of Space*. Specific practices of space are influenced by the production of representations of space as well as the production of spaces of representations. It is not only necessary to understand Lefebvre's trialectic of spatial practices, representations of space, and spaces of representation in its spatial meaning, but also in its temporal meaning. The Perla regeneration shows that the above mentioned conceptual triad is not purely spatial, it can be seen as spatio-temporal; all three concepts have their spatial as well as temporal

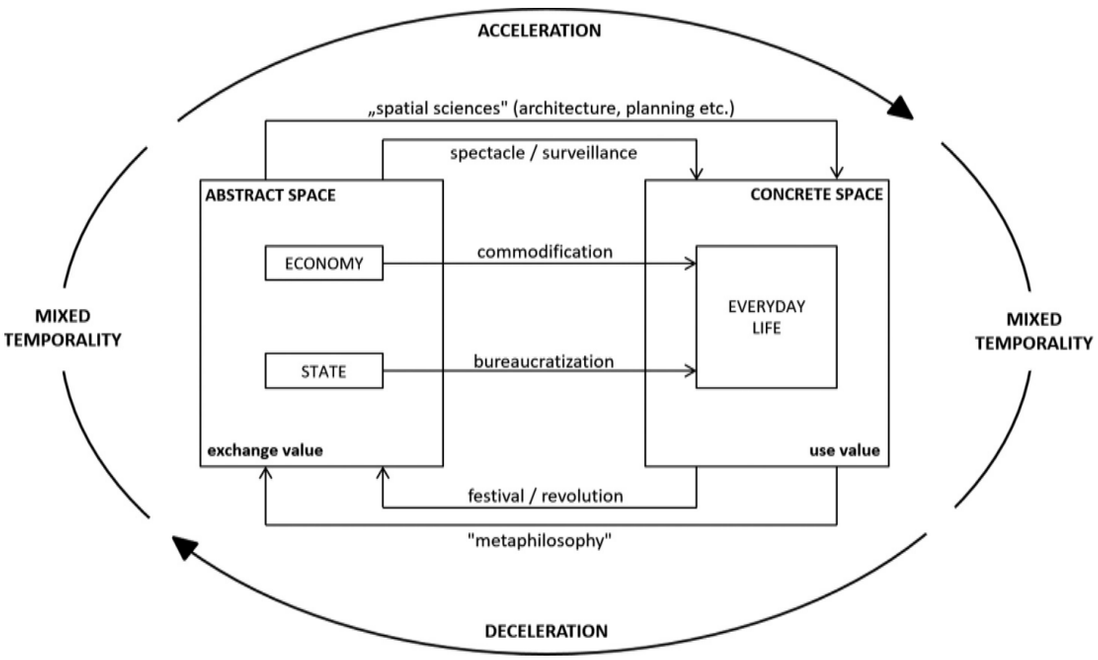

Figure 4. Types of actors in the process of the social (re)production of brownfield time and space. Source: adapted from Gregory (1994, 401).

dimensions, and each of them influences the process of the (re)production of space from a spatial as well as a temporal point of view. The case of Perla shows that actors that relate to values connected with long rhythms talk about space in the sense of spaces of representations, while short rhythm actors prefer representations of space. Seen from this perspective, Lefebvre's trialectic means not only social (re)production of space but social (re)production of timespace. Thus, the combination of both of Lefebvre's works offers an analytical tool for interconnecting the regeneration politics of time and the regeneration politics of space. If we want to think about alternative spaces, about spaces of change or resistance, we must also think about alternative times and vice versa.

A more specific suggestion for the applicability of this research is warranted. For example, that the long-touted stakeholder participation in brownfield regeneration is not only a question of whom and how to involve, but also of when (pace, duration) to involve. The regeneration process does not follow the same rhythm all the time, but its speed varies based on the actors involved. In the Perla case study, the process was initially shaped by slower actors, while around 2014 (see Figure 3), faster actors began to dominate. The different rhythmicity of actors is not necessarily due only to their speed, but more generally to the way they use time in negotiations. The division into fast and slow actors does not have to be linked to a specific role in the regeneration process (architect, municipality representative), but instead may depend more on the phase of regeneration itself. For example, a representative of a municipal government may be a slow actor at one stage and a fast actor at another stage. What matters is how the actor works with time at a certain stage of the process and whether he tends to speed up or slow down the process. At the same time, the difficulty of entering the regeneration process has been shown to vary throughout the process. While tools that open up discussion and involve new actors are significantly more successful in the slower phases of the regeneration process (spaces of representation), the creation of timetables, maps and plans is more successful in the faster phases of the regeneration process (representations of space). For the practice of brownfield regeneration it is important to observe not only the identity of the actors but also the timespaces of negotiation during the regeneration process. Discussion and the decentralization of power as well as pointillism and representations of space are thus important tools in the assessment of stakeholder involvement in brownfield regeneration.

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Notes

1. The establishment of the company is officially dated from 1844, in 1888 the company had 3000 mechanical states and numbered 2,600 textile workers from five surrounding towns. The company engaged in the production of cotton fabrics and yarns, flannel, poplin and pajamas and employed at least one person from each family in the town at the time of its greatest boom. Perla was privatized in the 1990s, similar to most other national companies in the Czech Republic. Perla finished its production in 2009 and released all of its last 150 employees. Since 2009, Perla 01 has been abandoned and meets all brownfield definition features.
2. This means that one of the key stakeholders was interviewed twice. This is one senior city representative, nicknamed "Premysl", who was interviewed again two years later.
3. The school year in elementary and high schools in the Czech Republic is divided into 10 months of teaching and 2 months of summer holidays.
4. Municipalities in the Czech Republic both carry out agendas delegated by the state and also create their own political agendas (Osman et al. 2020).

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Taming the genius loci? Contesting post-socialist creative industries in the case of Brno's former prison

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ABSTRACT

In the increasingly tight race of inter-urban competition, the idea that cities have to be made creative has gripped the imagination of urban planners and scholars alike. This process is imagined as straightforward, readily exportable and devoid of conflict. The paper uses the perspective of relational place-making to reveal the creative city imperative as a political process. This is carried out through the medium of conflict, which brings about two contrasting place frames, which progressively reveal each other's political connections. We use the case of a former central-European prison, located in Brno, the Czech Republic, to show how making a city creative is just one possible framing of a place, how making cities attractive to creative individuals engenders resistance and how historical memory summons the powerful genius loci, that is nevertheless relational and contingent. The results illustrate in detail how the conflict between development and preservation unfolds around six axes of opposition that define the two frames (e.g. future vs. past, part vs. whole etc.) and how these axes are themselves linked to various concepts of place and time.

1. Introduction

The idea that cities have to be made creative has gripped the imagination of urban planners throughout the Western world. This interest has also taken hold in some Central and European cities, as suggested by projects (e.g. EUKN, 2012) and publications (e.g. Aspen Review, 2015). However, little is known about how this process might unfold outside the core of North American and Western European metropolises. Since the original creative city thesis makes quite a bit of the qualities of locality and of local heritage (Landry & Bianchini, 1995), it is worth asking whether the particular contexts of central European cities, with their fractured histories under Nazism, Soviet socialism and post-socialism, may pose a different set of challenges compared to those in Western Europe. The conflict surrounding the Brno prison, proposed by some to be a regional epicentre of creative industries but resisted by others interested in its preservation, reveals how the urban cultural and creative industries have been drawn into a highly contentious space, mobilized around political memory. By describing in detail this process we reveal the important but little recognized role of memory as a form of political resistance to the creative city.

The paper also contributes to the literature on place-making (Koopmans, Keech, Sovová, & Reed, 2017; Lyons, Carothers, & Reedy, 2016; Pierce, Martin, & Murphy, 2011) by linking the generic process of relational place-making to the emerging interest for the cultural and creative industries in Central and Eastern Europe. It documents how historical memory has become a crucial vehicle for challenging the creative city drive. Interestingly, this challenge does not reside in an ideological critique of the creative city, as it has been formulated in Western countries either from the left or the right (cf. Peck, 2005). Instead, historical memory as political vehicle is constructed as an interlocking set of historical frames at urban, national and international levels. We therefore ask: how is memory mobilized in contesting creative industries in post-socialist cities and, more generally, wherever places are intertwined with memory politics? We thus contribute to the growing interest in exploring the conflicting implications of the creative city (e.g. Novy & Colomb, 2013; Zebracki, 2018) by focussing on resistance mediated through the politics of memory and illustrate this through a very rich case study from a contested post-totalitarian urban space in Central and Eastern Europe.

The theoretical challenges posed by the creative city and its conflicting entanglements in Central and Eastern Europe are discussed below. This is followed by the presentation of the case study and of the data collection methods and analysis. The main analytical section of the article consists of six axes of opposition along which the creative city is set in contrast with a political interpretation of the genius loci, as articulated by its opponents, around a revived politics of memory. The six

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thematic axes allow a fine-grained distinction between two place-frames, labelled developmentalist and preservationist, and can be described in terms of: monument versus subsidy, sooner versus at the right time, future versus past, part versus unit, respect versus attraction, mixing versus purification. They reveal how resistance to the creative city emerges and is organized around a politics of memory.

2. The geographic scope of urban creativity: where does Central and Eastern Europe stand?

In the early years of the emergence of the creative city argument, Landry and Bianchini (1995: 22) pointed out that what is lacking in city planning is a "sufficient understanding of how a sense of place can be created, maintained or recreated". In this view, creativity was not an intrinsic quality, but a policy capability. As a remedy to this problem, the authors provided a collection of various creative solutions to give cities a renewed sense of place.

Creativity soon came to be seen as a critical advantage in the face of inter-urban competition. Richard Florida's *The Rise of the Creative Class* (Florida, 2002) advanced the argument that the creative class is what propels economic development in American cities. The argument was expanded to other cities throughout the world (Florida, 2005) and later received added empirical weight through an 82-nation study in the second edition of the *Rise of the Creative Class* (Florida & Mellander, 2013). In the latter, Florida reveals the share of creative class in the workforce of several countries such as Singapore, Switzerland, the Netherlands and Australia, with rates between 47.3 and 44.5% of the population. For urban areas, Florida presents a ranking for twenty cities outside the United States, with Amsterdam at the top and Paris at the lower end. Shifting the scale to the intra-urban level, creative firms and workers tend to become geographically clustered in a very tight way, as the role of place and face-to-face social relations is seen as essential (Clare, 2013). In terms of geographic reach, the creative city thesis seems to have found unencumbered applicability outside its Anglo-American core, at least in other metropolises of the Global North.

In post-socialist Central and Eastern Europe (CEE), the creative city literature is more recent. Becuţ (2016) retraces the first references to creative industries in several of these countries such as Bulgaria (2001), Hungary (2002), Lithuania (2003), Slovakia and Latvia (2005). For the Czech Republic, there is no clear indication on the first use of the creative industries concept (Chaloupková, 2018; Marková, 2014; Marková & Boruta, 2012; Slach, Koutský, Novotný, & Zenka, 2013) but in 2006 the first strategic document nominally in "support of the arts" was published (Ministry of Culture, Czech Republic, 2015).

The fate of creative cities – both as urban policy and urban theory – has been critically analysed the post-socialist context by Borén and Young (2016). They conclude that creative city policy applied in the post-socialist space is often inspired by practices and theories from the US and the UK (Borén & Young, 2016). Others found that rather than adopting whole policy frameworks, post-socialist cities usually adopt a mix of creative policies from Western European cities (Tafel-Viia, Viia, Terk, & Lassur, 2014). The CEE literature tends to be theory-importing rather than exporting, which means that "concepts utilized have been imported from the West and applied to 'creativity' in the post-socialist context, with relatively little development or mutation of theory in situ" (Borén & Young, 2016, 589 emphasis in original). The question is whether a broader concept of the 'creative post-socialist city' can be developed, that should bring to the fore its distinct articulations, compared to its Western counterparts (Stryjakiewicz, Męczyński, & Stachowiak, 2014). There is no reason to assume a coherent post-socialist approach to the creative city (Tafel-Viia et al., 2014). However, there are two trends that may set the post-socialist cities apart and highlight, in particular, the role played by the politics of memory.

Stryjakiewicz et al. (2014) identify these as the commodification of culture and the increase in urban heterogeneity. After 1990, commodification occurred rapidly in the post-socialist cities. The main drivers of this process were the privatization of some economic activities, which led to the loss of functionality of the buildings that use to house them, and the disintegration of traditional cultural institutions. This often led to controversies and "raised many puzzling ideological and political concerns" (Scott, 2008: 84; Stryjakiewicz et al., 2014). This is particularly the case with regard to the spaces of commemoration linked to the socialist past, reflected in street names, the names of public squares and the use of buildings (Rose-Redwood, Alderman, & Azaryahu, 2008: 161).

The increase in urban heterogeneity, on the other hand, has accompanied the rise of the creative class in post-socialist urban space (Burdack & Lange, 2011). With its appetite for experimentation (Florida, 2014), the creative class is loosely tied to tradition or the past in general. The net result of rapid commodification and growing heterogeneity is that creativity and culture-led development are sometimes viewed in critical or ambivalent terms in CEE (Czirfusz, 2017; Sternberg, 2013) This is linked to the increasingly active politics of memory in this part of the world (Ferenčuhová & Gentile, 2016).

3. Creative cities, the dynamics of conflict and the politics of memory

Florida's main message is that creativity is a matter of applying principles and scripts in advancing the standing of each city in inter-urban competition (Peck, 2005). As Peck puts it, "the creativity fix typifies the rising generation of urban 'models' that have been purposefully disembedded and unmoored from local conditions of possibility, after which they can be prescriptively abstracted as ostensibly pan-urban solutions […] they are products of the circulatory networks of 'fast' urban policy" (Peck, 2012: 479). The pan-urban solutions, however, rarely work without friction. Indeed, Florida (2014) himself is concerned about conflicts that pit the creative class against the working and service classes. He therefore calls for the "rewards and promises of the creative city [to] be shared more equally" (Florida, 2014: 370). What he fails to capture is that, to the extent to which pan-urban solutions reach diverse urban settings, conflict will shape more and more the mechanisms of creative city-making.

From the point of view of the creative city, conflict can have a twofold effect. On the one hand, it plays a role in stimulating creativity, to the extent to which the creative subject encounters an "optimum threshold of resistance" and is compelled to devise ingenious solutions (Melucci cited in Landry & Bianchini, 1995, 20). This can lead to discoveries and hybrid constructions between the old and the new, between urban traditions and innovative ideas. On the other hand, making cities creative is a contested process (Hutter, 2014). Hutter distinguishes four arenas in which controversies are fought out in the city, namely those between political, economic, every-day life and artistic interests. The most interesting of these, argues Hutter, is the field of contested values, where "new meaning is constantly contested within and between the various spheres of value" (Hutter, 2014: 7).

The creative city argument has generally been approached in relation to economic values but the field of political values is highly relevant in the post-socialist context. We therefore ask, where and how do the commodification and growing heterogeneity associated with creativity strategies uncork powerful genius loci in post-socialist cities? We show how a protracted conflict in a post-totalitarian city progressively reveals how material transformations in the name of creativity conjure an increasingly powerful memory politics. By the latter we mean that the mere proposal to transform built spaces or fragments thereof is resisted by re-signifying their historical meaning and weaving it into a complex narrative, in fact, a politics of remembering. Such a perspective enriches the discussion about the role of urban cultural policies in terms of heritage preservation within the emerging creative place-making discourse (Grodach, 2017).

To pursue the question above, we use the framework of relational place-making proposed by Pierce and his colleagues (2011). Through

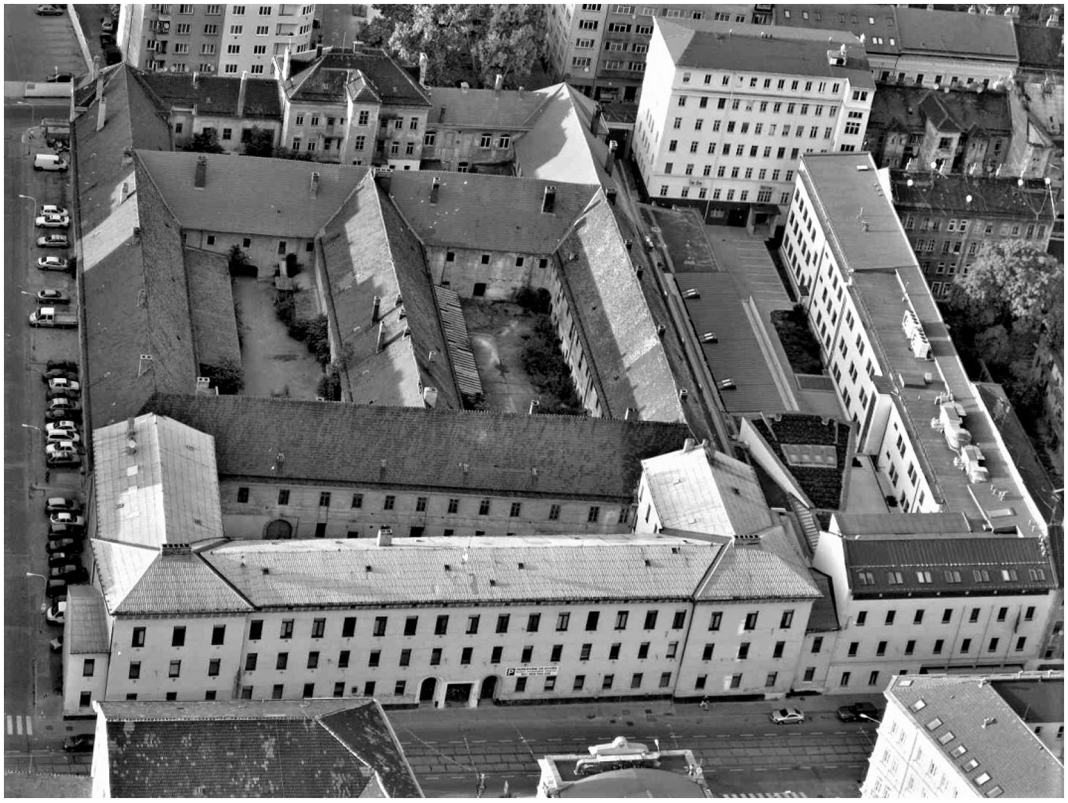

Fig. 1. The former prison, located at Bratislavská 68 in Brno, is a complex of interconnecting buildings between Soudní, Cejl and Bratislavská streets. Source: Creative Brno (2018)

this approach, conflicts within and over the creative city are recast as conflicting place-frames. This requires that each conflict over creative city-making – especially those that takes a longer time or reach a relative stalemate – is identified and reconstructed in its complex linkages. This is because frames are not stand-alone artefacts. They are rather connected to place-making processes (bundles of significant material or symbolic objects) and to the participation of actors in networks. Making cities creative entails their connecting with a variety of place elements and actors, along the two opposing lines of action. On the one hand, every new creative city is driven by emulation of other creative cities (Peck, 2012) and is linked to general symbols and meanings. On the other, cities acquire their distinguishing characteristics by exploiting the specificity of their places and their local meanings (Rius Ulldemolins, 2014).

One of these characteristics that is both universal across the post-socialist space and unique to Central and Eastern European cities are the material artefacts of long-term totalitarian rule. Former prisons, labour camps, walls, statues or street names have all played important roles during socialism as visible markers of state power. After 1990, they have come under contestation as part of a powerful anti-communist imagination (Apor, 2010; Bouška & Pinerová, 2008; Light & Young, 2011; Tölle, 2010). The politics of commemoration in Eastern Europe appear to be driven by various political interests, as documented by Apor (2010) in the case of Hungary's *House of Terror*, Poland's *Museum of Freedom*, Estonia's *Museum of Occupations* and the *Museum of the Occupation of Latvia*. Under conditions of "rising nationalist, authoritarian and revisionist powers" (Radonić, 2017: 285) throughout Eastern Europe, the politics of memory has assumed growing importance. One of these political aims is to depict the totalitarian episode as a gruesome aberration, but one imposed from outside, leaving the national body mostly purified of responsibility. Furthermore, analysts point out that historical representations in the region are very uncertain, a situation which makes the search for historical proofs – best represented by complex configurations such as prisons – all the more important (Apor, 2010).

The case to be analysed below is one of the rare instances in which the creative drive settles on a brownfield, which is an abandoned or underused piece of land that has lost its prior functionality within the urban fabric. This brownfield becomes thoroughly transformed as the plans to redevelop it encounter resistance. The usually unspoken assumptions of the creative city in CEE become progressively revealed in confrontation with a powerful memory politics. For this reason, the Brno prison is a particularly pointed case of creative city contestation in CEE, illustrating how memory politics can become an increasingly strong basis for social action.

4. Data collection and case study description

Brownfield redevelopment is a relatively recent occurrence in CEE countries. It is generally viewed as a positive trend that leads to the revitalization of areas that would otherwise remain abandoned or underused (Frantál et al., 2015). Most regeneration projects aim to develop new service-based facilities, including commercial or business centres, retail landscapes (Kunc & Križan, 2018) or urban amenities, such as parks, green areas, accommodation facilities (Osman, Frantál, Klusáček, Kunc, & Martinát, 2015), or to efficiently revitalize the spaces designed for urban agriculture/gardening (Duží, Frantál, & Simon Rojo, 2017; Sovová & Krylová, 2019). Culturally-driven regeneration initiatives are considerably less common in CEE, but they assume in this region an added urgency. In the inter-urban competition, cities in the central part of Europe try to capitalize on their heritage to develop their profiles as liveable and successful alternatives to Western cities (Martinović & Ifko, 2018; Navrátil et al., 2018). The case considered in this article is one in which an attempt to develop the city of Brno as a creative hub in CEE met with unexpected resistance. The ensuing conflict revolved around the need and opportunity to redevelop a

former prison that was found unused in the early 2010s (see Fig. 1).

The authors first learned about the conflict at a brownfield seminar, where the prison was presented as a highly innovative approach to culture-led regeneration in the Czech Republic. The case grabbed the attention of the mainstream media and was showcased on the Czech national television (2010). While it enjoyed heightened attention, the idea to turn a Nazi/Stalinist prison into a centre for creative people also became controversial. The large, underused Baroque building appeared as an ideal place from which to launch the city's ambition to become a regional creative centre. On the other hand, historians and former political prisoners stepped onto the scene claiming that the building should remain unmodified, in order to preserve in situ its rich and bloody history. Being sensitized to the conflict we used interviews and document analysis to probe deeper.

The research design consisted of 11 interviews with people involved in the conflict, which were carried out over several months in 2017. We identified the initial interview partners at a brownfield seminar. Before the interviews, the web pages of Creative Brno and media sources were used for documentation. Starting from a few key individuals, we used snowball sampling to identify the best-informed and active actors involved in the Brno prison dispute. In the end, we obtained a balanced picture between those who endorsed the creative centre (six respondents) and those opposing it (five informants). The interviews lasted between three quarters of an hour and almost 4 h, with an average of 1 h and 20 min. The questions were generic and asked about respondents' experiences in regeneration processes, about the main actors involved in regeneration and their goals and relations of power.

The results were analysed using the Atlas.ti software. The approach combined a structured coding based on the distinction between the two conflicting frames built around the prison complex (see Table 1).

To this we added a grounded coding of emerging topics. Six thematic axes were identified, allowing a fine-grained distinction between the two frames, which we have come to define as the developmentalist and the preservationist frames. The term “axis” has been added to the data during the analysis by the authors to refer to a topic of mutual concern, but on which the two parties position themselves in divergent (or opposing) ways. The empirical part of the paper reflects this dichotomy and is divided into sections according to the identified axes.

The limitations of the study refer to first of all to the fact that the interviews capture a snapshot of an ongoing social conflict. The analysis deals primarily with the intentions of actors and their interpretation and less with what actors do and the consequences of their actions. The latter may alter the former so that the conclusions regarding the actual workings of the creative city can only be tentative.

The prison is located in a deprived area of Brno, the Czech Republic, which became known as Brno Bronx in the 2010s, due to its segregated Roma population. The prison itself is named “Káznice”, which is the Czech word for prison, and was built at the end of the 18th century. After serving as an orphanage between 1778 and 1786, the building was used as a prison until 1956. This signals its close link to Stalinism, as 1956 was the year of Khrushchev's secret speech against Stalinist terror (Dobson, 2009). Historians point out three particularly important periods in the history of the prison. The first occurred when Brno was part of the protectorate of Bohemia and Moravia (1939–45), occupied by Nazi Germany. During this era the complex was used as a transfer station to other prisons and concentrations camps, where many of them died (Brummer & Konečný, 2018). Two members of the Czech resistance, Květoslav Kolařík and Alois Zavadil, were hanged under the roof on 12th March 1945 (Černý, 2018). During this time, the main prison was Kounic, where about 700 persons were executed, including 11-year old Miloš Prudil in April 1945 (Brummer & Konečný, 2013). After the end of WWII, the prison in Cejl was used as place of retribution for hundreds of Germans and Czechs accused of war crimes and collaboration with Nazi (Brummer & Konečný, 2017). In total, 83 persons were sentenced to death and 73 were executed on the gallows in the prison courtyard (Černý, 2018). When the Communist party came to power in 1948, the prison was used for jailing potential and real enemies of the Communist rule. Between 1948 and 1952, 22 persons were executed (Staufčíková, 2018). The suffering of prisoners cannot be simply measured by the number of executions. Brummer & Konečný (2015) illustrate the case of Jiřina Slámová, who was sentenced to 18 year in prison in 1950 for helping with her husband Cyril several persons to escape from communist Czechoslovakia to Western countries. She was separated from her two-year old daughter and a five-year old son until 1956 and saw only during prison visits how they had grown up (Brummer & Konečný 2015).

5. Interpretation of place-framing and the role of memory

5.1. Creative city making meets resistance

The preconditions for the conflict go back to 2010 when an international conference on “Creative Brno” took place with the participation of international and local experts. The *Káznice* building was proposed as a possible host for a future creative centre in Brno, a place where artists and creative entrepreneurs could find the space and infrastructure to unfold their innovative pursuits. One year later, the City of Brno approved the subvention for a project to revitalize the *Káznice* complex as a creative centre. The year 2012 saw further progress on the project preparation through negotiations between the City of Brno and the South Moravian Innovation Centre, followed in 2013 by feasibility studies carried out by the latter. Following the municipal elections of 2014, the project received political support from new political parties, especially Zit Brno (Deputy Mayor of the City). Some popular interest for developing a creative centre in the *Káznice* building was marshalled via the so-called Ghettofest, a street festival which drew several thousand participants in 2012 and 2014.

The conflict itself ignited some years after the initiative to transform the prison. It happened in 2015, when several former political prisoners surviving the Stalinist repression asked the city of Brno not to allow the creative centre because it would alter the special place represented by the prison. They claimed that the redevelopment of the prison would

Table 1
Different perspectives of the supporters and opponents of the revitalization of the Brno prison.
Source: The authors.

Type of perspective	Supporters of creative centre project	Opponents of creative centre project
Terminological	It is a brownfield with a specific type of burden. There is not chemical waste but a “historical” burden.	This is not a brownfield, but a unique historical monument.
Architectural	It is necessary to protect 10–20% of the building (death chambers, execution places) and rebuild the rest to meet the future needs of the creative community and to improve the image of the Brno Bronx.	The object must be preserved to the fullest extent, including structures and adjustments from the Stalinist era (e.g. wooden constructions).
Urbanistic	New entrances must be created for the former prison to communicate with urbanistic structures in its surroundings	The site must still have a closed prison character to remind of its bloody history. There should not be new gates or shops in the outer walls.
Temporal	It is necessary to speed up and get a quick EU, Norwegian or national subvention for regeneration.	It is necessary to ensure that nothing from the historical heritage is destroyed.

amount to destroying the place, where innocent people were executed. In 2016, the Brno branch of the National Heritage institute sent a suggestion to the Ministry of Culture of Czech Republic asking that the former prison be placed on a list of protected heritage buildings and be safeguarded against destructions of historic values as a result of the planned reconstruction. In mid-2016, Brno City submitted an official appeal to the Ministry of Culture, claiming that if the former prison were placed on the heritage protection list, it would significantly delay the creative centre construction process. The city aimed to create additional floors with apartments on top of the historical *Káznice*, but the National Heritage institute requested saving the original structures and roofs.

This latter strand of the conflict begins to reveal some of its deeper meaning. The creative city is not simply a new strategy for urban development, but it is a form of rapid commodification of public spaces (Stryjakiewicz et al., 2014) and has been described as the "handmaiden […] of urban real estate development" (O'Connor & Shaw, 2014: 169). As Hutter explains, in a way that makes sense of the Brno case,

> there is a constant struggle over spaces that have gained in value through their employment in unique aesthetic projects, which makes them attractive to buyers who make their living in higher-wage occupations outside the creative sector (Hutter, 2014: 6).

The *Kaznice* as creative centre is still to be achieved, but the very intention to create a real estate intervention has sparked controversies. The struggle over space is even more intense when the place in question becomes integrated in commemorative practice.

5.2. Place frames in the Brno prison conflict: developmentalism vs. preservationism

According to Pierce et al. (2011) place frames emerge as part of a conflict and, once they are developed, help further define the lines and implications of conflict. The proponents and opponents of the creative centre have articulated over time a number of topics to justify their opposing stances. Analysing the collected interviews shows that the items most frequently mentioned by all respondents are "developing party" (61 times), referring to individuals and groups, such as brownfield managers, authors of the feasibility study, deputy mayor, chief architect, the South Moravian innovation centre and construction companies investing in the creative centre and the "preservation party" (41 times), which represents people protecting the city's heritage, historians, activist historians and NGOs. Fig. 2 shows that actors on the developmentalist side were involved earlier (2006–2008) than the preservationists (since 2015), but also received later support from others (2014, 2017).

The *developmentalist frame* articulates a rationale to "develop" the former prison by emphasizing the *opportunity* to host the creative industries in Brno. Hence, the prison is just an available and highly suitable space for the creative centre (central location, good public transport accessibility, city ownership, development project in a segregated area). Its intrinsic characteristics (e.g. its Baroque origins and history of political repression) can be subordinated to the revitalization project. The *preservationist* frame turns the developmentalist approach on its head: the history of the prison is all that matters. Any re-development would destroy or alter significant artefacts of the former prison complex. The other keywords mentioned in the interviews reveal some of the contested terms around which each frame is organized. These are "time", "past", "history", "memory", "crime", "unpunished", "trauma", "responsibility", "significance" or "protection of monuments".

The two frames are almost perfect polar opposites. Whereas the developmentalist framework insists on mixing, compromise and interconnecting the past and the present, the past suffering and the present joy, the preservationist framework is discriminating. The latter argues that it is dangerous to mix functions (historical memory and entertainment) in those places that archive this historical layer materially. Rather than mixing the old and the new, one needs to wait until the meanings and interpretations of that time – a dark time in the history of Brno and Czechoslovakia – can be dispassionately analysed and purified. The axes of opposition should be read as a cumulative process of differentiation, in which the apparent political neutrality of the creative city concept is increasingly called into question. This happens because it is confronted with a progressively self-aware post-totalitarian memory politics.

5.3. Axis 1: monument versus subsidy

The whole process is typical for redevelopment through projects. The development party approaches the issue of financial sources primarily as subsidies. Yet subsidies require a certain schedule that needs to be observed, and this constrains the whole process of regeneration with haste and speed. The preservationists are not much concerned

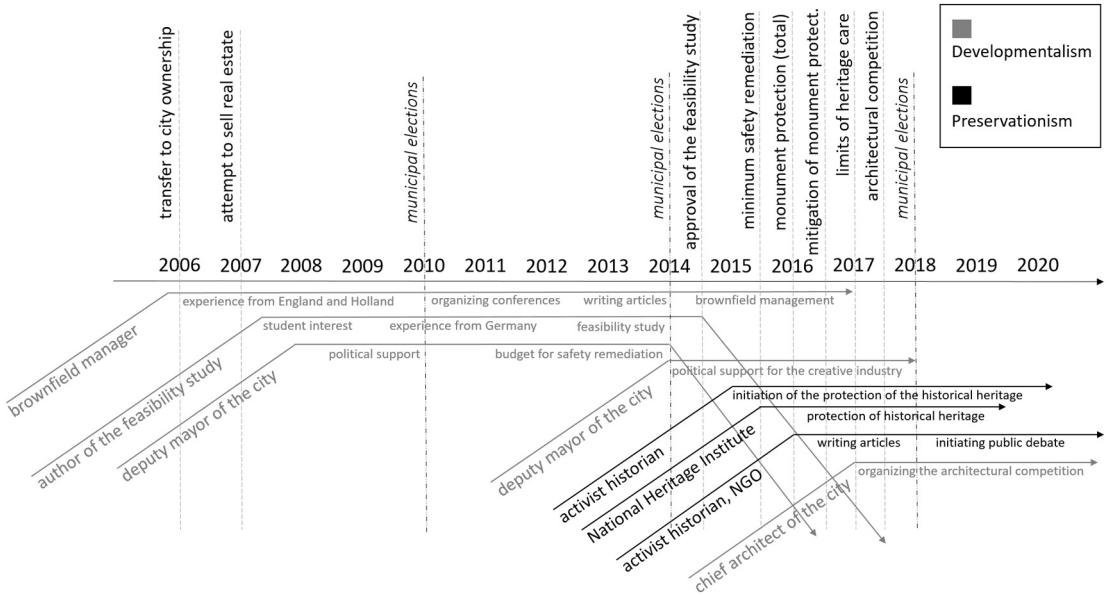

Fig. 2. The intersecting trajectories of social actors in the conflict over the *Káznice*.
Source: Authors' depiction based on the collected interviews.

about prices, profitability or effectiveness, as they see the *Káznice* as a monument to be preserved. For the developmentalists, the protection of monuments slows down and prolongs the process, and to obtain the subsidy is therefore more complicated. It may cause them to miss the funding schedule.

> *Then we received an opinion that in about a half a year, it will become a monument, to quite a large extent. We appealed against the decision since we said that this blocks off the possibility of subsidy from the Operational Programme Enterprise and Innovation for Competitiveness, that it ruined the whole schedule.*
>
> (brownfield manager, Brno, 2017)

For the developmentalist framework, it is possible to give priority to funding needs (subsidy programs, operational program requirements, co-financing possibilities, loans, schedules) before interpreting the meaning of the newly framed creative place. On the other hand, a representative of the opponents recognized that the financial issue (subsidy) compelled the proponents to "*go against those who wish to proclaim it a monument*" (activist historian, NGO, Prague, 2017). Financial resources seem to override anything else and the *Káznice* is reduced only to the means by which its transformation will be financed. The preservation party stressed the need not to think of a place in this narrow financial sense. They emphasized its historical value as a monument that is timeless, incalculable, and at the same time inappropriate to adaptation to the dictates of funding that overlooks its symbolic value. For the preservation party, financial resources are not important, the (historical) meaning of the re-framed place is important to them. In an ad hoc way, this translates the distinction between 'fast policy' – or the adoption of off-the-shelf development techniques (Peck, 2002) – and 'patient policy' which "recognises, inter alia, the lead time and experimentation required to build successful cultural economies" (O'Connor & Shaw, 2014: 93). At this first level, then, the creative city is a strategy to seize the moment – the availability of subsidies – while it lasts. The opposing frame is to consider the prison a monument, even if it lacks any economic sustainability. The implications of both place-frames are administrative, that is, immediate in time and place.

5.4. Axis 2: sooner versus at the right time

The topic of speed significantly structures the mutual relation of both frames. For the developmentalist framework, the short-term is invaluable, that is, the sooner the better. For the preservationist framework, the key time value is the appropriate timing (*genius tempori*), it is crucially important to find the suitable time for protection or for reconstruction. The earliest date may not necessarily be the most appropriate, on the contrary. A certain "archaeological" positioning is typical for the preservation party. The more distant in the future historians will be able to uncover this historical layer and interpret it, the better. This is not because of the improvement of research technologies (as for archaeologists), but because of a greater distance and unencumbered distance from the historical moments that need to be interpreted.

> *In case of Stalinism, which is more topical, as the people who started as the members of the Socialist Youth Movement at the age of twenty and were members of the committees, nowadays they are eighty-five year old university professors or legends in their fields of work, and now they are awarded, and nobody blames them. […] The director of the Museum of the Brno city is the last director of the Museum of the labour movement in Brno. If he came up with an idea to build or open the Museum of Communism to the public, he would embarrass himself.*
>
> (activist historian, Brno, 2017)

In order to interpret certain dark periods of the communist regime, it is necessary to wait until the institutions that are key for this interpretation will not be under the direct influence of the people who have helped perpetuate that regime. According to the preservation party, this time has not yet come, and so it is not a proper time to re-frame the place. Historical memory needs thus time to be assembled in all its significant details.

This latter argument ties directly into the post-socialist memory politics of the second and third decades after the fall of Communism (Bernhard & Kubik, 2014). From this point of view, the struggle over the *Káznice* is one over what shall be remembered and what shall be forgotten from the history of Brno (Rose-Redwood et al., 2008). This means that the gap between the development and preservation frameworks is even deeper than a mere question over the status of a building. The putative immediate need for a creative centre in the *Káznice* is countered by the need to properly understand how Stalinism in Czechoslovakia has shaped that particular place. And this is impossible as long as people associated with Stalinism are still influential.

At the same time, there is a certain competition concerning who was first, who actually discovered the prison, who went through a longer time development, the developmentalists or preservationists? As one representative of the creative centre put is:

> *until we have decided paradoxically that we will save the building from a further decay, so until this time the preservationists weren't interested at all.*
>
> (deputy mayor of the city, Brno, 2017)

This becomes a certain tool of legitimization for its utilization. Each place frame thus includes a specific vision of time (speed vs. right timing). The development party appears to be proactive, innovative, experimental, fast, qualities thanks to which it has reached the prison earlier and has a greater right to re-frame it. On the other hand, the preservation party is seen as passive, reactive, slow, so they did not know about the prison and have therefore no right to re-frame it.

Analytically, this shows that memory is contingent on its possible uses. For the developmentalists, memory is "active", that is, it is useful to the extent to which it makes their creative centre stands out as a special place. For the preservation party, memory is "archival" in the sense that it preserves all that is not connected to the present but can be activated as part of a new imaginary (Assman cited in Tölle, 2010). The time for that imaginary – of fullfledged anti-communism - has not yet come, as some of its proponents are still in power.

5.5. Axis 3: future versus past

Apart from the speed of change, another aspect of time is related to the direction of change. While the developmentalist framework considers the *Káznice* in relation to the possible future uses, the preservationist framework is facing the past and its implications, which that have not been sufficiently articulated, purified, or recognized into their (from the present-day perspective) "real" implications. Paradoxically, the developmentalist frame is geared towards satisfying the needs of creative individuals in the present but realizes that this will only be possible in a matter of years. The concern is, therefore, to bring the future as close to the present as possible. But planning requires an extended time:

> *It started with a certain pressure from below, from the creative people, and then we looked at the schedule that we set up in the study of feasibility, and […] realised that we are doing this for a completely different generation than the one that we promised to do it for, as the people who needed this in 2010 are going to be most likely in a different condition in 2025.*
>
> (executive of the construction company, Brno, 2017)

Creating a meaningful (in terms of functional and cost-effective) new use for an unused place requires a certain knowledge of the needs that are changing very dynamically over time. The creative industry needs a centre but the time it takes to build that centre affects the ways in which that centre should look like. The conversion of a place for the creative industry poses a threat to planned future needs, which may

change in the meantime. The passage of time in this sense is playing for the preservation party, because the future is gradually changing in the past, thus depreciating future visions and increasing the distance from past events. For the historians, on the other hand, the problem is a huge gap in knowledge of the recent past, a gap which cannot be filled in a short time:

> *The first thing is utter unawareness and I have to say as a historian that in case of [Káznice], the historians are also to be blamed, as there is no single article published in the expert literature on the history of the Prison […], no single monograph, no single book, nothing.*
>
> (historian, Brno, 2017)

The preservation party in this sense also needs the future so that they can prepare to interpret the past at the proper time. In short, as the future is pushed further from the present moment, the value of the *Káznice* increases for the preservation and decreases for the development party. This is an unexpected outcome of fast policy (Peck, 2002), where the resistance to the rapid imposition of development templates lengthens the commodification process and allows historiography and anti-communist memory to gather momentum.

5.6. Axis 4: part versus whole

A slightly different axis of opposition between the developmentalist and preservationist frames, partially related to time, is the emphasis on the part versus the whole. For the development framework, the economy of the future utilization is the key part, that is, how much the operation will cost, how its new utilization will be able to cover its own operation costs and to what extent it will rely on the subsidies from public sources. Due to this perspective, the only realistic solution is to preserve only a selected part of the building and not the whole of it. The redeveloped parts of the prison building are meant to cover the economic sustainability of its remainder:

> *If the prison should survive, something must be pulled down. Well, but I don't think it must necessarily be thirty or50%, but definitely some part.*
>
> (representative of office of the city architect, Brno, 2017)

This is one limit of commodification, that it operates only on the economically viable parts of a complexly bundled place, while disregarding the rest. On the other hand, the argument about the economy of its future utilization is not strong enough for the preservationist framework. The latter insists on preserving the whole Prison, predominantly due to its inaccessible history between 1939 and 1989. One activist in the field of heritage protection summarizes this preservationist position:

> *I feel always irritated when* [city representative] *says in his articles that, of course, we preserve the death cells, the execution site, we preserve the hooks in the loft, it is great, but these are just details. It is necessary to preserve the whole monument. Its value is in the whole unit, not in parts.*
>
> (activist historian, Brno, 2017)

This is a definition of place that appears to have memory weaved into its totality. It cannot be parsed, it has to be a whole. This reveals one way in which place emerges as relational (Massey, 2005). The part and the whole correspond to two distinct approaches to connecting the place to other places and entities. The "part" of developmentalism is the malleable space in which to set up the material basis for a creative Brno. This place is linked to creative individuals moving in and out of the proposed centre, to itinerant exhibitions or to similar creative hubs in Western Europe etc. The "whole" of preservationists makes only sense if it is seen as being linked to the whole of life, of the lives of survivors of Soviet and Nazi repression, of the history of Brno, and of Czechoslovak history. The whole vs. part axis can also be interpreted in terms of active vs. archival memory. Whereas the former is oriented towards what is important for group belonging, value attachment and future needs, the archival memory preserves all that is not connected to the present (Assman cited in Tölle, 2010).

The preservationist frame also brings up the topic of emotion. One historian formulates this in the following terms:

> *Let's preserve the place in such a form that it gives us the emotion and understanding of how terrible this period of time was and that we want to learn more about it.*
>
> (historian, Brno, 2017)

This illustrates very well how the *Káznice* is a bundle of space and time, linked together by peoples' emotions and cognitions (Massey, 2005; Pierce et al., 2011). The developmentalist framework has no vocabulary to incorporate the emotions linked to wholeness. This reveals one more facet of the creative city thesis, namely that it fosters one type of creativity, usually the liberal-individualistic variant (Czirfusz, 2015), to the exclusion of collective, historical or other kinds of creative urban pursuits.

5.7. Axis 5: respect versus attractiveness

Emphasizing the part or the whole also relates to differentiated attitudes towards them. Why is just "a part" important or why does only "the whole" matter? While the developmentalist framework uses words such as life, lively, revive, bring, cheerful etc., the preservationist framework draws attention to how these terms lead to the vulgarization of the place and the violation of the reverence. It is interesting that within the developmentalist framework death is discussed, yet its form is not problematized. Within the preservation framework, in contrast, the emphasis is placed on the specific form of death that is connected with suffering. Death by suffering is not just simple death:

> *The idea of the Creative centre is totally inappropriate for this place, it is not suitable, even though I'm a fan of all artists and creative business and advertising industry, I even worked in one advertising company, but I think their place is in any pulled down factory, in any school area that is available, anywhere but not in the place where people were tortured and killed.*
>
> (activist historian, Brno, 2017)

This respondent identifies in the developmentalist framework a trivialisation of the death of innocent people. A representative of the public space department illustrates the relativization of death in prison:

> *I had a good mind to tell him that in Brno, here people were dying everywhere. So many wars, here people were dying in the streets so that keeping everything with a reverence, I don't know…*
>
> (representative of the office of the city architect, Brno, 2017)

This seems to challenge the framing of the *Káznice*, by removing it from any specific place and any specific significance. For one side, it is an opportunity to finally honour the memory of the victims and take some responsibility for a people's actions. In the *Káznice*, *some* people decided that *others* were guilty of being who they were (be it Czechs, Jews, bourgeois etc.) and that they had to be punished so that their death becomes a source of terror for the others. On the developmentalist hand, it is an opportunity to make the future place not only financially sustainable but also attractive: it can be exciting to know that ones creativity can unfold where once people were robbed of their creativity and their humanity. For the development party, it is more important to attract a large number of people to a newly framed memorial within a creative centre than to create a "dead museum" for a few elitist historians. Respect and attractiveness help define more clearly the political stances but also, and more importantly in this context, the political practices towards the prison. Respect involves protection, preservation and self-imposed restraint in making the place ready for new uses. Attractiveness is something that has to be achieved by active interventions, even playful or exuberant at times, such as the proposal to place toilets in the premises of the former death chambers.

Respect vs. attractiveness also define the kinds of people that feel

represented by the developmentalist vs. preservationist frames. This reveals the moral implications of the creative city as reflect in growing social heterogeneity. On the one hand are young, cosmopolitan and intrepid elites, such as the "creative ambassadors from Brno" (Creative Brno, 2019). On the other hand are older, local, or "contingent workers and laboring poor" as Peck (2005: 759) calls them. For the latter, the notion of a Czech national ethos, purified by suffering and death in the *Káznice*, is likely to be more appealing that the disembedded space of abstract creativity.

5.8. Axis 6: mixing versus purification

The last axis of reverence vs. attraction is linked to the difference between the effort to separate and the effort to mix. The development framework tries to reach the revitalization and attractiveness through mixing the inside with the outside, the old with the new, the Nazis with the Stalinists, the murderers with their victims. A construction engineer involved in the creative centre project describes the initiative of mentioning all the names of those imprisoned in all the epochs of the prison on a single commemorative plaque:

> *These were not only the names of hung people, but also people who were imprisoned there in the past and people who were part of the history in some way, more or less famous historical figures, but without distinguishing. So indeed, there were the victims of the Germans, but also the imprisoned and hung Nazis.* […] *We didn't state whether* [they were] *good or evil, we only stated* [their names] *and the date of* [their] *imprisonment, or whether* [they] *died there.*
>
> (executive of the construction company, Brno, 2017)

Key for the preservationist framework is the purification of individual people, terms, meanings, and keeping them in a certain homogeneity, mutually separated by firm boundaries (e.g. materialized by walls). Until a historical interpretation of this place is made, one should not manipulate it, one should not re-frame it materially. It seems as though the materiality of the Prison wall has demonstrated the boundaries between meanings, between who is the victim, and who is the culprit, between interpretation and misinterpretation, between fear and responsibility. In contrast, the perforation of walls, the combination of external and internal spaces, the combination of new technologies with the old, of new architectures with the old, seemed to make it impossible to return to the place its original meanings. The historian mentioned previously counters this in stark and condemning terms:

> *It is scandalous, for it offends the victims who are still alive, and I even know one of the people who are recorded there in writing and is still alive. He is Jewish, and could you explain to me why he should be recorded next to somebody who was responsible for having dug a grave for 15 people and then killed the people here in Brno Medlánky? Why should this person who survived the holocaust be placed right next to this one, who was then hung in Cejl for war crimes? There is no explanation for this.*
>
> (activist historian, Brno, 2017)

The way of transforming the place through the mixing of forms and functions that come with the concept of creativity implicit in Western creative industries is possible only if the interpretation of history would be largely complete. This, however, has not been achieved in the post-socialist space, so that manipulating the materiality of this historical layer becomes problematic, to say the least. This has its parallel in the "closed" nature of totalitarian experiences in Western Europe as opposed to the unfinished character of their corresponding experiences in Eastern Europe. Radonić (2017) found that the Holocaust has a universalized form of remembrance, whereas the recognition of Stalinist crimes and repression is an unfinished claim of Eastern Europeans towards themselves and their Western counterparts.

In other words, the memory of Stalinist crimes is not yet purified enough to be able to redeem the national ethos. This means that the materiality of the prison – the doors, roofs, the layout of the building – needs to be kept separate in order to carry out the purification. The creative city prevents this process of defining the "pure evilness" of Stalinism and hence hinders the establishment of a post-socialist *tabula rasa*, from which the national ethos can re-emerge.

6. Conclusion: the Káznice case and the politics of the Creative City

The two frames outlined above and the conflict they help define reveal the political undercurrents of the creative city thesis when it encounters a place-based politics of post-totalitarian memory. Rather than a formula for success in inter-urban competition, as defined by Florida, the conflict around the *Káznice* reveals, step by step, how the creative city is a specific political object and how the resistance it encounters reveals its deeper ideological but also ontological and epistemological ramifications.

In this paper we have unpacked some of the implications of the analysis of the *Káznice*, for the creative city thesis in general and for its application in the post-socialist context, in particular. In general terms, the conflict confirms the often-made observation that the creative economy brings in its wake processes of commodification and growing heterogeneity, which have specific effects on the urban economy and polity. First, commodification means a selective carving out of urban features for targeted investment - such as parts of buildings or of streets – while disregarding the rest. Second, commodification entails some degree of gentrification in which actors unrelated to the creative industries come to inhabit creative spaces. The growing heterogeneity deepens this tendency and splits the moral fabric of the city between creative elites and uncreative and precarious labourers. Another general finding is that the creative city thesis can accommodate the touted uniqueness of a place only up to a certain point. Once creative city investments run into funding or scheduling challenges due to a different place-framing the pressure towards smoothening such local peculiarities also grows. The result tends to be a zero-sum game rather than an overall improvement of the urban economy.

There are many instances in which the creative city has been adopted uncritically and with little resistance in CEE. The case under discussion reveals, however, the powerful genius loci confronting the creative city, in the form of post-totalitarian memory politics. The totalitarian episode in CEE is far from having achieved the universality of the Holocaust remembrance. For this reason, sites of totalitarian commemoration are particularly sensitive nerves that reverberate throughout post-socialist urban spaces. The materiality of totalitarian artefacts, their perceived wholeness and purity, the patience required to uncover and explore them are all part of an evolving memory politics. The latter is crucially linked to the question of suffering and, ultimately, of human worth in an unruly "East", still struggling to make sense of its totalitarian past, in relation to the "West", in which the totalitarian episodes seem to have found their proper framing (Mälksoo, 2009). At the same time, this post-totalitarian memory serves to reinforce a purified national ethos that is becoming increasingly assertive in Central and Eastern Europe.

This dispute over place-framing is an analytically highly interesting constellation to also discuss the importance of time – of which memory is but a particular interpretation - in post-socialist space. This possibility can only be sketched here as a topic for further research. Each of the identified frameworks works differently with time and uses it for different purposes. The preservationist framework uses time to draw attention to the past, emphasizing its importance, elusiveness and volatility. The past is to be found, uncovered and kept in place. The place is the primary bearer of memory, and memory is contained throughout this place, in its shape, architecture, walls, even beams. Loss or even modulation of this location would mean loss or modulation of this memory. The preservationist framework believes more of the past than the present, believes that preserving memory is currently more secure

than its interpretation. In other words, the time has not yet come to reinterpret the place, to re-frame the place, to reuse the place. Instrumentalization of memory that would fit the ideas of the preservationist framework is not yet possible and so it does not instrumentalize it, but only preserves and actually prevents any instrumentalization.

On the other hand, the developmentalist framework is oriented towards the future, a conception of time devoid of memory. In accordance with Florida (2014), it does not consider past conflicts, or conflicts between past and present generations, but only between present and future generations. Memory is a drawing card that can be used in the future for place-marketing that can help promote its uniqueness in order to sell it. From their point of view, memory is instrumentalized into a kind of attraction or comparative advantage over other places. Unlike the preservationist framework, it does not make a case for memory conservation, but rather for its use as quickly as possible. This dispute thus shows how the creative city is caught in a conflict over the politics of time. This means that relational place-making (Lyons et al., 2016; Pierce et al., 2011) cannot be considered only in spatial terms. Especially where there have been some ruptures or discontinuities in the historical development and where it is possible to expect some dispute about the instrumentalization of historical memory, it is necessary to consider place-making also in the context of time framing. In other words, urban planners and urban managers are not only to deal with genius loci, but it is also necessary to consider *genius tempori* in rethinking urban policies. The past vs. future is thus an wider space of contestation than the memory politics analysed in this article.

The general policy recommendation for dealing with time and memory in devising creative-city initiatives is to embrace these as contested and experiment-driven processes. What seems to be an uncreative and stagnant urban scene – for example in a post-industrial and post-totalitarian city – teems in fact with a variety of groups and individuals harbouring different and often conflicting urban visions. These have to be recognized and encouraged so as to ground creativity in different sets of experiences – even if some of them seem conservative – rather than in an abstract creative class narrative driven by young, urban and highly educated cultural entrepreneurs. To achieve this, policy makers need to be willing to devote even more resources to the creative city. It is important to have, for example, both an intact Baroque-era prison, preserved in its minutest details, and not far from it, a creative hub that problematizes the tensions inherent in preserving memory and opening it to new interpretations.

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RESEARCH ARTICLE

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The social stone: a story of transformation from ableist to accessible topology

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ABSTRACT

Using a case study of a kerb – the social stone – found at a tram traffic Island, the text demonstrates the re/production of the ableist city and analyses processes of transforming such a city into an accessible space for people with disabilities. The authors apply actor-network theory to analyse the mutual construction of space and bodies. To understand this construction, the concept of topology is used, which the article develops by introducing 'ableist' and 'accessible' topology. Unlike topography, which is in concord with able-bodied people, topology is more suitable for the analysis of space when also including non-standard bodies. Moreover, it allows the authors to analyse the mechanisms that reproduce and control the currently inaccessible city on the one hand, and it provide some room for change on the other. However, to make this change happen, a specific network must be established. To trace the associations that create such a network, the study uses in-depth interviews with involved actors collected over a ten-year period.

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MOTS-CLEFS
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La Piedra Social: Una Historia de Transformación de Topología Capacista a Accesible

RESUMEN

Utilizando un estudio de caso de una acera, la piedra social, que se encuentra en una isla de tráfico de tranvía, el texto demuestra la reproducción de la ciudad capacitista y analiza los procesos de transformación de dicha ciudad en un espacio accesible para las personas con discapacidad. Los autores aplican la teoría actor-red para analizar la construcción mutua del espacio y los cuerpos. Para entender esta construcción, se utiliza el concepto de topología, que el artículo desarrolla al introducir la topología 'capacista' y 'accesible'. A diferencia de la topografía, que está en concordancia con las personas sin discapacidad, la topología es más adecuada para el análisis del espacio cuando también incluye cuerpos que no son considerados el estándar. Además, permite a los autores analizar los mecanismos que reproducen y controlan la ciudad actualmente

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inaccesible, por un lado, y abre un espacio para el cambio, por el otro. Sin embargo, para que este cambio suceda, se debe establecer una red específica. Para rastrear las asociaciones que crean dicha red, el estudio utiliza entrevistas a profundidad con los actores involucrados, recopiladas durante un período de diez años.

La pierre sociale: l'histoire d'une transformation topologique, du validisme à l'accessible

RÉSUMÉ

À l'aide d'une étude de cas sur la bordure de trottoir (la pierre sociale) d'un îlot-refuge pour piétons sur une ligne de tramway, cet article démontre la re/production du validisme urbain et analyse les processus pour transformer les villes en espaces accessibles aux personnes en situation de handicap. Les auteurs appliquent la théorie de l'acteur-réseau pour étudier la construction mutuelle d'espace et de corps. Afin de comprendre cette construction, ils utilisent le concept de topologie, que l'article approfondit en introduisant la topologie du « validisme » et de l'« accessible ». Contrairement à la topographie, qui est en harmonie avec les personnes en possession de tous leurs moyens, la topologie est plus appropriée pour l'analyse des espaces quand cela inclut aussi des corps atypiques. De plus, elle permet aux auteurs de se pencher d'un côté sur les mécanismes qui reproduisent et contrôlent la ville actuellement inaccessible et de l'autre elle offre une marge de manœuvre pour les changements. Cependant, pour que ces changements surviennent, il faut établir un réseau spécifique. Pour suivre les associations qui créent de tels réseaux, cette étude utilise des entretiens approfondis avec des acteurs concernés, recueillis sur une décennie.

Introduction

The text narrates the story of a kerb, a 'stone' that is a part of a tram traffic Island. In order to make the stop accessible, the kerb needed to be lowered. But a wide range of pitfalls and obstacles kept preventing it. This story came to the attention of one of the authors, Robert, in the year 2010 during his PhD studies focusing on experience of wheelchair users. Together with Hana, they started to realize this issue was much broader than it seemed at the beginning. New topics that co-created his participants' experience with disability kept emerging.[1]

> What I see as a big problem are the tram and bus traffic Islands. They are barrier-like, so that you are not able to get off them. For example, the tram stop [the Red stop]., it's easy to get on it, but you are not able to get off. To get off the tram is totally smooth, ok. The tram comes, you go down its ramp, nice and easy. When travelling alone, you simply cannot be sure that you can just get off at this stop and everything would be ok. (Adam, 20 August 2010)

And the story of the kerb was born, the story of *a stone*, which, if placed at a specific height and slope, prevents many people with non-standard bodies from movement in the city and the use of public space. Space, which, according to Czech laws, should be 'open to all and sundry without limitation, hence serving general use, regardless of the ownership of this space' (Act

No. 128/2000 Coll. on Municipalities). However, as Adam's story shows, this is not the case for many people. The Czech Republic does not have any central body systematically dealing with physical accessibility, and the focus is placed instead on individual cases. This reflects the prevailing medical model in Czech society, which puts emphasis on individual impairments rather than on disability as a system of social discrimination (Porkertová, 2020). The decree on barrier-free building and construction (Decree No. 398/2009 Coll. on general technical requirements to secure barrier-free usage of buildings) is supposed to be supervised by the building offices[2]; however, their staff have never been duly trained and have no one to consult as no central authority on accessibility exists. Given this situation, self-appointed policymakers on accessibility are municipalities and their counselling bodies. Hence, these institutions control how disability is (not) reflected in the construction of a city and public space.

The interconnection of space and disability has attracted increasing attention in academia, opening new ways of comprehending space, bodies and difference (Anderson, 2001; Hall & Wilton, 2017; Imrie & Edwards, 2007; Šakaja, 2020). Our article wants to contribute by elaborating on this interconnection, improving the focus of analysis and capturing processes that create accessible and inaccessible spaces. Specifically, we will discuss how accessibility policies can be established in a country where the significance of the social model of disability is weak. Thus, we contribute to the recent debate among geographers, supporting the position that this model is not a very suitable tool for understanding the situation outside the Western world (Chouinard, 2014; Komardjaja, 2001; Worth et al., 2017).

Our methodology is based on a matrix which consists of following the development of one stone over a ten-year period. The data was collected in three rounds of interviews (in 2010, 2011 and 2018) with the aim of understanding what happens to *the stone* over time. The first round was realized within Robert's dissertation project and focused on the lived experience of electric wheelchair users in Brno (the second largest city in the Czech Republic). Based on interviews with Adam, the kerb was identified, as were other actors involved in the story, and the subsequent data collection was based on tracing associations.

The interview with Lena from an NGO offering diverse assistance to independently living wheelchair users, whom Adam mentioned, launched a second round of interviews in 2011. She talked about institutions, such as the Brno Public Transport Authority (DPMB); Brno communications (B-KOM), a road and street maintenance and repair company; and the Transport Department of the Brno City Municipality. The second round thus draws upon four interviews; in addition to Lena and Adam, Nora and Karel, representatives of these institutions, were included.

The third round was conducted in 2018 and focused on understanding the process of the recent Red stop reconstruction. We conducted 20 interviews with members of the Brno City Advisory Board for Accessibility (PSpBB), which became an important actor in the reconstruction. From this round, we use data from the interview with a member of this body, Viktoria, who also represents B-KOM.

In total, the text is built upon 38 interviews. All data collection were linked by the research question exploring how a network that enabled the movement of *the stone* was established and maintained. In our analysis, we traced various associations and sorted them according to the time period of the story and whether they contributed to the movement or hindered it.

The social stone and ableist topology

Our stone is not a stone in the geological sense nor has it been machined; it is instead made of concrete. Yet, we call it a 'stone' to highlight its apparent endurance, obduracy, solidity and immutability (see, Cohen, 2010; Edensor, 2011). A stone is usually regarded as something belonging to the *material* world – a factual, inhuman substance (Cohen, 2010). Nonetheless, we referred to our stone, a kerb on a tram traffic Island, as *social*.

However, being inspired by actor-network theory (ANT), we work with a different conception of the social than its established meaning in the tradition of social sciences, where the social 'replace[s] one kind of stuff by another' (Latour, 216, p. 93). Latour (2005, pp. 4–5) draws on the etymology of the Latin term *socius*, which refers to a 'trail of *associations* between heterogeneous elements'. Thus, social is not 'a special domain, a specific realm, or a particular sort of thing, but only [. . .] a very peculiar movement of re-association and reassembling'. When tracing the associations, we can articulate how the stone is transforming or maintaining when creating various networks by the establishment of connections. Through these connections, the stone gains its attributes, contours, stability and variability – 'no single component of this web is detachable as a lonely actor' (Cohen, 2010, p. 60) – thus, a stone, as well as our kerb, is a network itself, where the organic and inorganic are not separated.

Although the kerb is not easy to move, in the last ten years, it moved twice, and our text focuses on the networks of heterogeneous associations that hindered or facilitated the direction of the movement. We observe how the stone transformed the network of heterogeneous relations, and how this network altered the stone's mobility. The network does not refer to a mere layout of space or objects within it; concrete specificities forming the network attain their forms and attributes – they are specific assemblages stemming from the network heterogeneity, not homogeneous singularities preceding the network. They cannot be divided into the technological, the social or the human, but create heterogeneous material-semiotic constructions (Moser, 2006, p. 376) which produce specific configurations of subjectivity, materiality, embodiment, disability or space.

Besides the social, we use other actor-network theory (ANT) concepts (network, topology, passages) that serve as analytical tools for grasping and comprehending our story. The use of ANT in geography (Farias & Bender, 2010; Hitchings, 2003; Ruming, 2009; Smith, 2003), as well as relational conceptions of space (Doel, 2007; Jones, 2009; Murdoch, 1998, 2006), are quite common approaches to analysing urban space, and they enable us to follow the mutual constructions of space, objects and subjects.

Network analysis – and conceiving a network as an analytical tool – studies how a network is interconnected, how it happens that such a heterogeneous creation holds together and which other connections it enables/disables to make. Each movement of the kerb can thus be seen as a kind of network agency that enabled it, and the network is in flux. Some actors leave the network, while others enter it or return. One kerb becomes an indicator of which associations are being made to enable the stone's mobility and of how this mobility transforms network assemblages and actors.

In ANT, the attention devoted to issues of disability is on the rise (Blume et al., 2014; Galis, 2011; Moser, 2006). Sometimes, ANT is criticized for not taking interest in excluded or less privileged actors (Galis, 2011); however, Moser and Law do notice who is excluded from making other connections (Moser, 2006; Moser & Law, 1999), which is also the case

of Adam. Some subjects are constructed as autonomous and able, and they can act, move freely and connect into a network, while others are created as disabled, and they cannot get off at the tram stop. Thus, one's dis/ability cannot be separated from the networks they co-constitute (and are constituted by), which expose dis/ability as dynamic and relational (see, Hall & Bates, 2019; Hall & Wilton, 2017; Lid, 2014; Thomas, 2004).

Our analysis focuses on the interconnection and mutual constitution of subjects/objects and space and uses another term close to ANT: *topology*. In geographical analysis, it serves as an antipode to the topographic and Euclidean conception of space, even though Law (2002, p. 95) stresses that 'objects inhabit both Euclidean and network spaces'. Topology is not about absolute distance, angles, shapes and surfaces but about principles of network assemblages. It is important to notice hierarchical relations, relations between places and relations between relations. Given this topological logic, places that are topographically close – that is, a traffic Island and a road – can be distant and inaccessible. As (Mol & Law, 1994, p. 649) put it, 'In a network space, then, proximity isn't metric. [. . .] It is a question of the network elements and the way they hang together. Places with a similar set of elements and similar relations between them are close to one another, and those with different elements or relations are far apart.' Distance is not measured in absolute values, and topology refers to timespace as a possibility for connection and disconnection, which is the foundation for proximity as well as ruptures.

Often, topology is perceived as an antipode of topographic 'tyranny of distance' (Murdoch, 1998, p. 358). However, topography and the related Euclidean space are not the opposites of topology; they represent one of its forms. 'Topological world is a world of multiple spaces. The Euclidean space is not written off but only thought of as one possible way to order spatial configuration of relations enacted through actor networks' (Jóhannesson & Bærenholdt, 2009, p. 18). Maps, built on the topographic conception of space, are what people often use for orientation and for linking their steps (or rides) with urban space. A city is constructed upon distances, angles and (seemingly) static qualities of space.

This configuration of cities – and bodies – is a concrete example of topology, a network assemblage that enables agency. Urban planning, architecture and also cartography represent parts of this topology – this corresponds to able-bodied subjects (see, Moser, 2006), and, therefore, we call it *ableist topology* in this text. Also, public transport, connecting different parts of a city, is built on this topology. Its lines can be pictured in a plan with the connections (buses, metro, etc). However, this topology is disturbed when it is entered by a body that cannot make connections with a network organized on the ableist principle. The public transport map is useless, showing paths and passages between places that are not close and accessible, but distant and inaccessible. The logic of the topographically shortest way does not work.

Topology does not concern only space, but also objects. Law (2002, p. 96) devotes his text to the mutual constitution of objects and space which are connected through topology. 'As topology invents objects and defines what will count as avoiding rupture it simultaneously invents or defines spatial conditions of im/possibility. [. . .] Or, to put it both more concisely and more generally, spaces are made with objects.' This makes it possible to bring issues of body and disability into the analysis. In mathematics, topology 'explores the character of objects in space. [. . .] Topologists think about spatiality by asking questions about the continuity of shapes: the properties that the latter retain while

they are also being deformed. In topology, for instance, a shape is said to hold its form while it is being squeezed, bent, or stretched out – but only so long as it is not also broken or torn.' (Law, 2002, p. 94). The description of this concept is important for understanding the topology of the body, which can be regarded as homeomorphism – a continuity of shape forms.

Bodies keep their qualities even if they bend to a certain extent. Ableist topology directly counts on the possibility of such transformation and the related continuity of a body. A person walks, stands, goes down the stairs, sits, crouches, straightens, reaches, touches, squeezes, etc. A body looks differently doing all these activities; it changes its shape, but not its topology. Nothing needs to be cut, torn or broken. This changing shape of a person needs to be in harmony with the construction of urban space, which enables agency. In other words, it is necessary that the body's topology is based on the same principles as space, and vice versa. However, wheelchair users defy such a topology. To analyse space in which various non-normative bodies move and which they create, topology is a more suitable tool than topography because it shows im/possibilities of connecting to networks that indicate proximity–distance and accessibility–inaccessibility.

Let us go back then to Adam. He describes a situation where mere accessible public transport vehicles are not enough for him to use the transport; he also needs accessible platforms or Islands. Moving further from the stop requires a number of passages. These can be imagined as places where interconnection with one (or more) specificity ends and it is necessary to establish connection with another. Moser and Law (1999) notice how easy or difficult it is to move in between when 'good passages' are adapted for able-bodied subjects (are part of ableist topology). For them, smoothness, and thus a certain invisibility of these passages, makes it possible to talk about a disembodied subject that seems to be moving in an autonomous and independent way (Moser, 2006).

When Adam gets off public transport directly onto a sidewalk, only one 'passage' is made, but, when getting off or onto an (tram/bus) Island, the situation gets complicated. First, it is necessary to get off onto the Island; however, it is a mere Island, from which he must enter a different space. Ideally it is to a pedestrian crossing or, less ideally, some place for crossing – the worst is a road. And only from this space, can he pass to a needed sidewalk. In contrast with the first example, using an Island requires three more passages from space to space at minimum. Each of these passages is connected with a vertical change, and each can represent a barrier which may not be overcome.

So, we further ask: What can be done to make uneasy passages easy ones? How can the topology of space be altered to correspond to different bodies? How does it happen that a kerb on an Island moves downwards?

The stone trapped in prescription

The distance from Adam's home to the nearest public transport stop, the *Red stop*, which the following text discusses the most, is 160 m. The *Orange stop* that gradually became accessible for him is 260 m from his home, and the *Green stop*, which he had to be using until recently, is 1,300 m away Figure 1(a).[3]

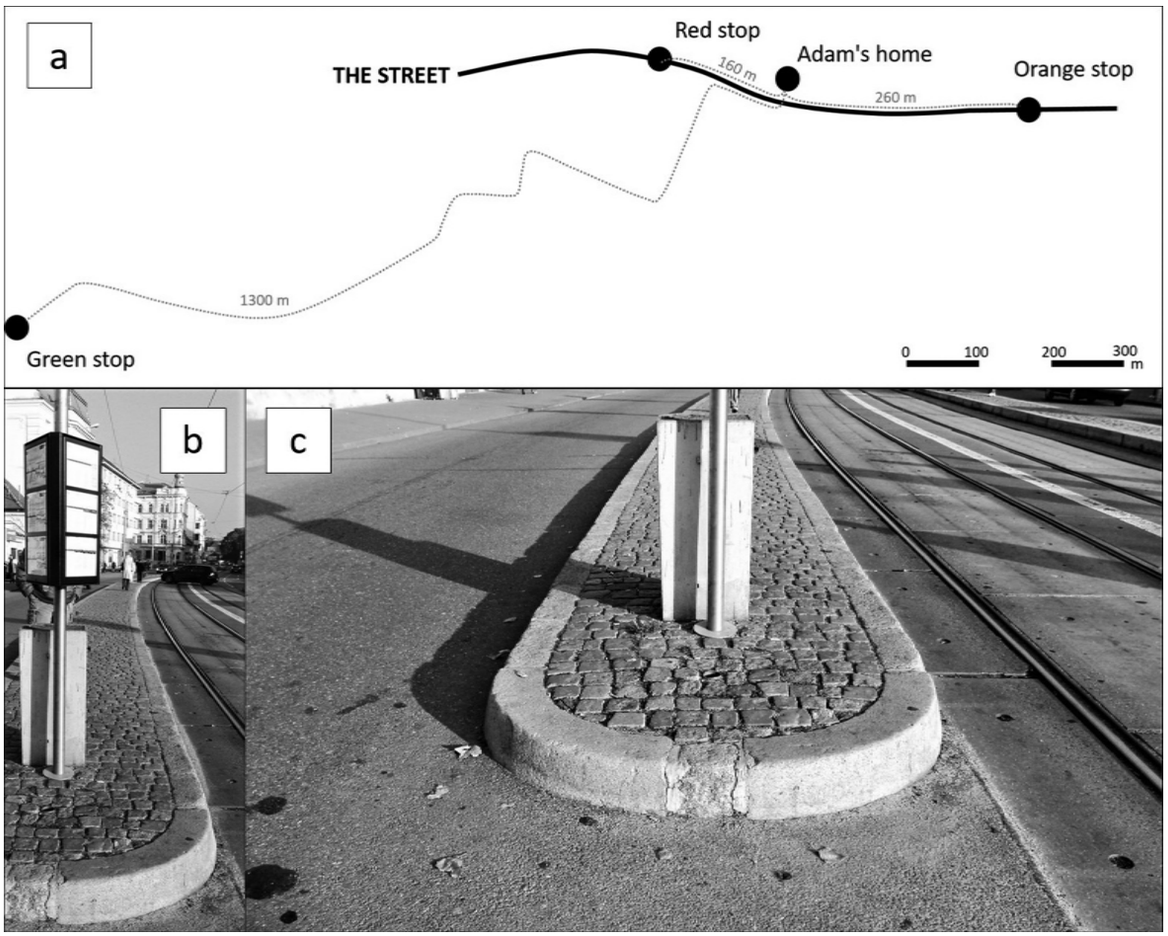

Figure 1. The Red stop – Adam's connection to public transport (source: author's processing).

When using public transport independently, Adam had to go 1.3 km from his home through a relatively complicated space with several crossroads with lights to get to the nearest accessible stop. Thus, the kerb of the Island near his home situated the Red stop in a significant position. It was important for him that *the street* including the nearest two stops, was to be 'reconstructed' in 2003.

> The whole [street] was being reconstructed, and so I hoped they would make those sloped kerb ramps there. I went there [to the Red stop], to see whether it was possible, and there was a worker who might have known. But he told me it was impossible because the Island was built in contradiction to the norm, it was too narrow, and that was why a kerb ramp couldn't be made there. (Adam, 5 October 2011)

At this moment, we encountered the first of stone's mobility. During the reconstruction, all traffic Islands were heightened to the level of accessible vehicles, that is, the kerb moved upwards. Consequently, it was not the case that the stone could not move at all, but it could not be moved in a certain direction – downwards. No kerb ramp was built to get off the Island, with the DPMB arguing that a pedestrian could walk over such a ramp out into nowhere – to dangerous places on the road between moving cars. That is to say, Adam tried to change the ableist topology of the traffic Island to one that would be compatible with his body. The former, however, stayed rigid, unchangeable.

Mol and Law distinguish various forms of topologies that create different forms of space from the formalized to the fluid (Law & Mol, 2002; Mol & Law, 1994), and topological analysis has found its way to geography (e.g., (Allen, 2011; Belcher et al., 2008; Blok, 2010; Paasi, 2011). Distinguishing between formalized and fluid topologies is important for our analysis; however, we also find inspiration in Murdoch (1998), who differentiates between *spaces of prescription* and *spaces of negotiation*.

A space – or topology – of prescription means that despite its heterogeneity, a network is stabilized, and translations that are made within it are clear and predictable (Murdoch, 1998). Translations are crucial for ANT; we can trace how they transform or stabilize the network. It is related to the conception of *the social*, which refers to 'the name of a movement, a displacement, a transformation, a translation' (Latour, 2005, p. 64). In translation – transformation – some qualities are lost while others are gained. The degree of transformation, or its predictability, is dependent on whether these specificities act as mediators or as intermediaries. 'Mediators transform, translate, distort, and modify the meaning or the elements they are supposed to carry' (Latour, 2005, p. 39). This transformation is never easy to predict. On the other hand, an intermediary 'is what transports meaning or force without transformation: defining its input is enough to define its outputs' (Latour, 2005, p. 39). However, the boundary between mediators and intermediaries is not a sharp one.

Topologies of prescription are predictable and formalized because translations are in accordance with the network. This causes predictable forms of agency that the given topology enables. The centre dominates the periphery; the local can be prescribed or forbidden from a distant place via 'remote control' (Murdoch, 1998, pp. 362–364). The network is standardized, hierarchized, and topology is prescribed by the centre thanks to the circulation of norms (and their predictable translation). This is how laws, norms and decrees work. They circulate in the topology of prescription and get as far as the traffic Island, while its accessible reconstruction goes 'against the norm'. In the topology of negotiation, in contrast, relations are temporary and diverse, and norms are hard to establish. Various network components need to be renegotiated, and makeshift coalitions are created. Topology, the principle behind the network assemblage, is fluid, instable and temporary.

Nevertheless, the topology of prescription and topology of negotiation are not separate; they meet, collide and mix. This also happens in our story. It is obvious that Adam's negotiation clashed with prescription – the Island was against the norm. But Adam did not give up. He turned for help to an NGO assisting people with disabilities, which interfered and started to communicate on his behalf. Thus, a new actor entered into the game, trying to move the stone downwards. Space for new *negotiation* opened. Below, Adam describes the situation of how the inaccessible Orange stop became accessible:

> Then somehow, by some miracle, it was successful. I don't know, maybe [naming a person from the NGO] helped a lot. (Adam, 5 October 2011)

What Adam claimed to be a miracle, were a series of gradual negotiations, translations, connections, disconnections and modifications of networks which can make something happen, such as connect a tram Island with a road and, subsequently, with a sidewalk.[4] For negotiations and thus modifications to be successful, it is necessary to comprehend the specific topology of prescription first, to know whom to address, to formulate one's own demands, use legible language and adequate terminology, be familiar with the legal

state of affairs, etc. Latour (2005, p. 132) reminds us that the word network is not only about mutual relations, the *work* is of equal importance to establish associations creating the social.

However, the case of the kerb at the Red stop was more complicated than that of the Orange stop. What at first seemed like a topology of prescription with some space for negotiation turned out to be a prescription of construction procedures that are difficult to penetrate under current Czech law.

> The thing with [the street] might have seemed like reconstruction, but it was just repairs. [. . .] And when they are repairing something, it means that they should, in fact, just replace it and make it the same as before. [. . .] It is easy to confuse these two, but a repair means that a team of workers without any project, without anything, comes and quickly fixes something. While a reconstruction must undergo a whole system of procedures. Depending on the construction scope, it requires territorial procedure, building procedure, a project. Everything needs to be approved. It is immensely expensive, it takes a long time, and then it gets realized according to the project. And [the street] was done under the repair regime. So, when I tried to discuss it with the Public Transport Authority [DPMB], they would answer, 'A repair? We are not allowed to change anything.' (Lena, NGO, 24 October 2011)

Lena knows the laws and reveals how the Building Act protects the kerb from moving downwards. There are two possible regimes of movement: reconstruction and repair. Although the stone seems to be solid and steady, stability is inseparable from change; it must be achieved and maintained as the stone is permanently changing – gradually decaying or being broken (see, Edensor, 2011). Labour is essential in order to keep such a heterogeneous entity together or/and transform it (Latour, 2005, p. 132). A network is never final. When a kerb no longer complies with the regulations, a repair is used to restore its topology. It refers to a relatively easy process that makes it possible to quickly fix some defects, flaws, worn out surfaces and so on. It works under a topology of prescription in which there is almost zero space for negotiation; it does not consider mediators who could transform the original network. It only includes intermediaries maintaining stability. Namely, material is replaced, new pavement replaces the previous one, etc. The prescription is strictly given, and the topology is predictable; consequently, a repair does not require any approvals from other institutions and no project needs to be drafted. It is therefore obvious that the possibility of mobility for the stone is very limited.

In contrast, a reconstruction mixes the topology of prescription with negotiation. During the numerous steps that need to be taken, room for negotiation opens, which complicates and slows down the whole process but also enables transformation of the network and its topology. It presupposes more complicated alterations of space, which need to be prepared, discussed, commented on and approved by relevant offices before being carried out. The prescription dwells in the prescribed steps that must be taken, and spaces of negotiation must be closed to start the project realization. The whole process of preparation for space reconstruction takes longer, is more expensive and uses different financial resources than a simple repair. The institution of reconstruction makes any movement of the kerb possible; however, its mobility is tied to project documentation, and movement other than the approved one is impossible.

Adam's notion of asking a worker to lay the kerb in a certain way was naive of both reconstruction and repair. Nevertheless, the construction works in which he tried to interfere were done as a repair, and thus, a question remains how it was possible that the kerb could have moved upwards but not downwards. To answer it, we need to introduce two more institutions governing the building process: a (planar) map and a surface slope.

A map is a tool for the representation of space on a plane, and, as such, it is not suited to show different surface heights (levelling) or surface slopes. Any construction process is based on map representations and mapping. A map is capable of controlling the stone's mobility in horizontal direction (southwards, eastwards, etc.) but not in vertical direction (upwards, downwards). Which means that a map does not show alterations in height, opening room for change.

> A repair as such cannot have a different use as far as the ground plan is concerned, since each construction is issued a territorial decision, which is valid for the whole building time. Which for the repair means that, if the kerb was here, it must stay there. But it doesn't mean that it must be laid this way (she stretches her hand in a horizontal position), it could also be laid this way (showing a slope by positioning her hand). (Nora, Brno City Municipality, 31 October 2011)

According to Nora, vertical movement of the kerb is possible as long as it does not appear in the cadastral map. Nevertheless, there is a big difference between raising the kerb upwards and sloping it downwards. Increasing its height does not require any further connections – an Island remains an Island, and, as such, it is connected within the ableist topology of the city, which makes easy passages for able-bodied people. Topography is not separated from topology, the Island and the sidewalk are close; it is enough just to take a few steps. On the other hand, for Adam, these places are distant despite their topographical proximity.

Although changing one edge of the kerb into a slope is not present in the cadastral map either, it is different in the sense that it needs a new passage – which clashes with ableist topology. It leads somewhere, and thus it requires certain connections that should be built on the principle of what we call accessible topology. For the kerb to be lowered, it is necessary to finish a pedestrian crossing, lower the opposite kerb, and so forth, which already alters the use of space and thus is beyond the scope of a repair. Hence why it was possible to move the kerb vertically, but only in a way that did not change the ground plan in the cadastral map and did not require any further changes in the surroundings.

Opening up a space for negotiation

To govern a city under a regime of repair causes situations that reproduce ableist topology. Despite this, Lena found certain room for negotiation when she used another national norm from the topology of prescription which could circulate to repairs and even be superior to them: the decree on accessibility.

> After a long fight, I was able to convince them that the decree on accessibility [Decree No. 398/2009 Coll.] really states that it should be used to create accessible constructions, even in case of a mere repair. (Lena, NGO, 24 October 2011)

Of crucial importance is who Lena is referring to as *them*. The prescription of accessibility is not strong or established. There are diverse actors among *them* who translate the decree in different ways, and their mutual cooperation while making accessible transport is of key importance. All tram and bus Islands, with a few exceptions caused by property disputes, are managed by the DPMB. However, the sidewalks near these Islands are managed by the corresponding city quarter – in this case, Brno-centre, which entrusted B-KOM with their management. The interpretations concerning a stone moving downwards vary considerably between these institutions. While B-KOM adopts a benevolent stance on moving the kerb downwards during a repair, DPMB is more careful. Nevertheless, the willingness of B-KOM to make changes for accessibility collapses due to missing connections.

> In a repair, we should, as you yourself have said, keep what is there. So, if there was a sloped kerb ramp, we will fix it, and, if there is none, we cannot make it there. Because any new ramp needs an approval of connection. A decision must be issued for this. On the other hand, when fixing accessible crossings, I think we can make it also within a repair. (Viktoria, B-KOM, 16 October 2018)

Viktoria strictly distinguishes between an accessible crossing and an accessible kerb ramp, which needs other connections/passages. Since B-KOM only manages sidewalks, any movement of kerbs on tram Islands is outside their competence. For Viktoria, our kerb represents a new accessible kerb ramp, which cannot be made within a repair because it has no adequate connection on the Island. At the same time, the DPMB sees an Island without connection to the nearest sidewalk. Connecting the sidewalk with the Island requires numerous changes that are divided among several institutions. The need for a coordinated procedure complicates the whole situation.

The decree on accessibility circulates to actors in an isolated way, without a topology of prescription which would interconnect individual actors, thus failing to secure accessibility in places where good passages for different bodies are missing (see, Moser & Law, 1999). However, in certain cases, a little digging can open room for negotiation by creating a relatively confused situation, not entirely supervised by prescription, and thus can be used. Karel, describes the circumstances around the Orange stop where, thanks to personal contacts and the unprescribed coordination of actors, the kerb was able to be moved downwards during the repair.

> They [B-KOM] wanted to dig it up. So, it can be said, we used the situation of it being all dug up, and, when they were putting back the kerbs, they did not put them back heightened but would sink them in and make them into sloped ramps. It happened like this. You see, we agreed that we would slope down our Islands and B-KOM made kerb ramps on their sidewalks. (Karel, DPMB, 1 November 2011)

Under certain circumstances and thanks to the mutual willingness, personal contacts between actors, and their agreement – bordering on the illegal, that is, ignoring some prescriptions – it is possible to build a kerb ramp on an Island as well as on a sidewalk, moving the stone up and down, as was the case of the Orange stop. The question is why a similar scenario cannot happen for the Red stop.

> With the [Red stop], there is a big problem that it is curved. Drivers cannot use their mirror [to check for passengers getting on or off]; they don't see anything in them. So, there is a big mirror on a post there—it is that complicated. So, I do not want to fix the stop in that place,

> and we did not make it at that stop because we don't want the stop there. I don't want it there because it is troublesome as far as the traffic is concerned. It is dangerous. (Karel, DPMB, 1 November 2011)

The whole DPMB does not want the stop in this place, so their will for negotiations is none. The kerb on the Island can be made into a ramp only by DPMB, while the kerb on the opposite side can be lowered only by B-KOM. Both institutions are able to coordinate if there is an appropriate pedestrian crossing, which is absent at the Red stop (Figure 1c). However, establishing a new pedestrian crossing is an impossible process to realize during a repair. Karel also expands upon other problematic characteristics of the stop – its curved shape (Figure 1b) impacting the safety of passengers on the Island, which is hard to control for drivers. The DPMB would like to move the stop, and therefore, it does not want to have anything to do with it in its current location.

Another pitfall met the case of the Red Stop. During a repair, one important actor is left out in this regime: the Road Traffic Licensing Directorate of the Police of the Czech Republic [Police]. The Police is known as an affected organ that must provide its opinion on all traffic building classified as reconstruction. In order to have a say in all traffic-related constructions, it logically tries to enforce this reconstruction regime, thus becoming one of the participants in the negotiations.

> There is a crossing on the opposite side in the street which the police wanted to reconstruct in a barrier-free way. But it could not be made within a repair because they said it falls under planning permission and it must be discussed with them. And I know that a colleague has faced this several times, that he had a crossing repaired with a lowered kerb ramp, and the police contacted him and said, 'How come you had the crossing repaired without involving us.' And the same conflict is here. In the case of a repair, there is no need to discuss it, but in the case of reconstruction, it is necessary. [. . .] They have a bit of a different explanation: if the kerb is lowered, they assume it had to be done through a planning permission, while we try to do it as a simple repair, calling it just maintenance works. (Viktoria, B-KOM, 16 October 2018)

Hence, applying the decree on accessibility, B-KOM (city organization) opened room for change within the topology of prescription, which they intend to use. However, such room was not open for the Police (state organization), which want to close it for all, and keep the original prescription causing predictable forms of action enabled by the network topology. B-KOM's concern is that people must be able to safely cross from their sidewalk to a traffic Island managed by the DPMB. However, the Police intervene and demonstrate that one network (accessible crossing) is linked also to other networks, enabling agency. Accessible Islands enable the agency of people who had so far been excluded, and the Police wants to make sure that their form of agency would not lead to unexpected situations.

Thus, ableist topology is a topology of prescription maintained by a number of interconnected actors, including the Police. A person who finds passages difficult is not only insufficient (Moser, 2006; Moser & Law, 1999) but, according to the Police, also creating potentially dangerous (because of non-standard) situations. As a result, the Police makes the gradual removal of barriers from public space more difficult. The state administration stands in opposition to self-governing bodies (municipalities, regions). While the Police, as a state body, uphold the most strict interpretation of the law, giving

it substantial decision-making power, self-governing bodies are willing to accept a slightly looser interpretation and take into account the precariousness of the lived experience of city users for faster accessibility of urban space.

The stone is moving

Due to its unfavourable constellation, the movement of the stone at the Red stop seemed impossible. Even if under certain circumstances, B-KOM and the DPMB were able to agree and lower kerbs during repairs, the DPMB was against such an agreement because it found the current location of the tram Island inappropriate. It was clear that if the stone was to move, it would not be on the current Island. However, moving a whole tram Island requires more changes made also to the nearby road. The topography of the location needs to be altered, and this is possible only under the reconstruction regime. The contemporary network of actors did not have sufficient force to impose such a reconstruction and move the whole Island into the straight part of the street because of one kerb. At this time, another important actor entered, significantly shifting the network in which the stone had been trapped immobile. In 2016, the Labour Office returned to its newly reconstructed building on the street.

In addition to the Police, the Labour Office represents another big state institution involved in our story. Besides assisting to people in searching for employment, it is also responsible for the payment of *care* and *disability benefits*. Consequently, the Labour Office became a key actor because it demanded a topology that would enable people with different bodies to use its services. It had been located on the street previously but, because its building was not accessible, it had to be temporarily relocated for the period of reconstruction. In 2016, its agendas, including those for people with disabilities, returned to the reconstructed building. Even though the building became fully accessible, a part of the clients protested that it was difficult to reach – a topographically nearest public transport stop, the Red stop, could not be used, the building had no parking reserved for persons with disabilities and yet personal visits to the office were required.

Consequently, it was not only the Labour Office that had entered the locality, but also a community of people with disabilities. One kerb became a thorn in the side of a whole group commuting to the address, and thus, new pressure was put on the DPMB. We cannot assume that the Labour Office was the initiator of the reconstruction of the street and the tram Island. Its arrival, however, did accelerate the process. Complaints about the DPMB by the Labour Office's clients abounded, and the reconstruction of the street had to be prioritized over other projects.

Another new actor that entered the process was the Brno City Advisory Board for Accessibility (PSpBB), which represented the response of experts and the wider public to experiences like Adam's. The board was established in March 2017 and many of its members knew each other from previous cases and negotiations (both B-KOM and DPMB are represented); however, there was a diversity of professions, expertise, approaches and languages (construction, legal, medicine, etc.).

This had a dual effect. Firstly, the steps of hitherto scattered individuals became coordinated. PSpBB members were dealing with accessibility issues from various positions and for diverse reasons. Viktoria, who earlier spoke on behalf of B-KOM, later also came to represent also PSpBB. A similar dual role is played by other members of PSpBB; many were originally

interested in accessibility issues as volunteering individuals or NGO members, and, after its establishment, they started to merge both roles. There is a big difference when a politician, city clerk, project planner or builder is addressed by a private person representing academia or an NGO or by the same person acting on behalf of the Brno City Advisory Board. The legitimacy and power of accessibility efforts increased immensely, and they started to balance the power of private capital as well as the arbitrariness of state institutions.

Secondly, new know-how about the complexity of accessibility issues in the urban environment was being built. In the Czech Republic, there is no institutionalized field of disability studies or disability geography. Until recently, the institutional milieu tended to support sectional know-how at the level of claims of people with various types of bodily experience (NGOs for visually impaired people, NGOs for people with impaired hearing, NGOs for people with impaired mobility). The establishment of the advisory bodies was motivated by an effort to create institutions with a stronger voice, exceeding these sectional boundaries and building know-how about the common as well as different claims of various user groups concerning the accessibility of urban space.

Complicated processes, a mix of territorial owners and managers, contradictory interpretations of the law and the arbitrary action of some state institutions had gradually led to a situation where larger Czech cities started to establish similar bodies. Their space is one with a low degree of prescription and high degree of negotiation. Nevertheless, the openness to negotiation aimed to negotiate and establish a new prescription. One concerned PSpBB itself, where a space of negotiation – which used to be open to temporary coalitions, associations, collisions and uncertain outcomes – was gradually moulded by an effort for certain institutional form. The second prescription concerned the creation of urban space which would respect accessible topology and produce institutional, formalized and coordinated room for the negotiation, replacing the personal contacts and goodwill of individual actors. Thus, efforts to create an accessible city became legitimate, increasing pressure on the most important institutions (DPMB, B-KOM, Brno City Investment Committee). Regular meetings were introduced, key competences were divided and, as a result, actors realizing construction and building could be controlled and coordinated.

The link between the Red stop reconstruction and PSpBB is, to some extent, symbolic. It was the first big reconstruction of PSpBB's existence, and the Red stop became a flagship on which PSpBB wanted to demonstrate some principles of accessibility. PSpBB played a more or less controlling role, watching over the succession between territorial managers and overseeing that the whole path between the Red stop and the Labour Office was interconnected and clear. It added guiding lines, initiated the construction of parking space for people with disabilities, and so on. PSpBB contributed to a new precedent in the area of accessibility, and the Red stop, after reconstruction, became a model for accessible tram Islands in Brno.

In this way, PSpBB was the last actor in the lengthy process of moving the stone downwards, which assembled in efforts to make the urban space of Brno accessible. PSpBB is an important actor, but it itself is a heterogeneous network. At the same time, it became obvious that it acted as a kind of counterbalance to state organizations such as the Police. Thanks to its existence, some legal interpretations of the Police were outweighed, and, for example, the municipality's interpretation that accessible crossings and ramps can also be built during repairs was heard.

Conclusion: from prescription to negotiation and back again

The story of a *social stone* thus demonstrates several interesting phenomena in the post-socialist politics of accessibility of public urban space. It is evident that the lowering of the kerb is the agency of a complicated network which did not exist at the beginning of the process; it was impossible for Adam and Lena, even with the assistance of the decree on accessibility, to make the stone move. It was entangled into too many threads of curves, crossings, repairs, etc. backed by powerful institutions. Only upon the arrival of the Labour Office and the whole community of people with disabilities did the coordination of the hitherto scattered individuals, through PSpBB, manage to transform the network into an actor that remodelled the whole street. In the end, the kerb did not move only vertically but also horizontally, shifting the whole stop, creating new tram Islands, adjusting nearby sidewalks, and adding traffic lights. For this action, the kerb needed a bigger force than Adam was able to exert at the beginning of the story.

From the perspective of topography, the Red stop was shifted about 80 m to the east. However, from the topological view, a small revolution happened in the politics of accessibility of Czech urban space. Passages were created to the Island, which finally connected to its surroundings. The topographical proximity of the Island and the sidewalk, or the stop and the Labour Office, finally also became topological proximity for people like Adam. The original stop, built on ableist topology and required topologically corresponding bodies changing their shape during movement, transformed into a stop in harmony with a body in a wheelchair. Ableist topology was replaced by accessible topology, which, however, is never finished. It is rather a process of making networks with good passages, which enable the connections of space with different bodies.

The change from ableist to accessible topology is also part of the topological 'revolution'. Both ableist and accessible topology are essentially topologies of prescription. They prescribe how space should be interconnected, which links should be possible, and which not. However, to change one topology of prescription into another requires a topology that facilitates this change and negotiates the new prescription.

In this sense, our story offers an example of transformation from one prescription into another, in which urban public space is (re)produced. The carrier of the change was PSpBB recruited from individuals who tried to open space for negotiation. After they established themselves within this new body, the newly negotiated accessible topology started to approach a new prescription.

Such alterations to negotiation and prescription, in the example of one kerb, enrich the original Murdoch topologies (1998, 2006), showing how these topologies are related and how they transform one into another. The gradual call of individual actors for change in the constant reproduction of ableist topology demonstrates that in order to transform one topology of prescription and create a new one, new interconnections and new networks are necessary. Each topology of prescription requires its own network through which agency is being accomplished. At this moment, it cannot be concluded that the process of negotiating a new topology in Brno is finished in a newly prescribed procedure. However, it is obvious that PSpBB has become the chief agent of the new topology of prescription.

Among other things, the immovable kerb at the Red stop in Brno made evident the absence of a state institution which could prescribe accessible topology. The establishment of advisory bodies in large cities responds to this absence and reveals their key role in making Czech urban space accessible. Not only has the state resigned this role so far, but some of its institutions have acted against making accessible changes in urban space in the Czech Republic

Notes

1. The research in its initial phase was not supported by any grant and published. The standards common for the qualitative research were followed in the study, including the signature of written informed consent form after the interviews, informing the participants about the content and the purpose of the study and about the anonymity of the data and voluntary nature of the research event (the possibility of not answering the questions or terminating the interview according to their will at any time) etc. The research was conducted on the basis of the only existing code of ethics in the Czech Republic at the time: The Code of Ethics of the Czech Association for Social Anthropology.
2. Building offices are authorities regulating and overseeing the building and construction of both private and public properties.
3. Public transport in Brno is provided by trams, trolleybuses and buses. The population of Brno is almost 500,000, while Brno has 1,500 public transport stops which serve 800 vehicles that transport over 360 million people a year. A more detailed analysis of public transport in Brno is offered, for example, by (Mulíček et al., 2016) and (Osman et al., 2020). The issue of accessibility has been fragmented among many different organizations. The DPMB focused primarily on changing the vehicle fleet towards barrier-free vehicles. The Brno City Advisory Board for Accessibility (PSpBB) was only created in 2017, and the first strategic concept of the city's accessibility was only created in 2020.
4. Wheelchair access to the Orange stop is a different story. Creating barrier-free access is complicated in different ways and thus requires different negotiations. For the purposes of this paper, we have chosen the story of the Red stop, because it shows a very wide range of pitfalls that can be encountered in creating an accessible public space in the Czech Republic.

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Intentional Automobility: Mobility Choice Between Socialist and Postsocialist Chrononormativity

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This article responds to the uncritical use of chronological time and the strict division between past, present, and future when thinking about mobility behavior or mobility decisions. On the basis of this critique, it introduces the concept of intentional automobility, which relies on the Bergsonian–Deleuzian conception of time—duration (*la durée*). It shows that transport-mode decisions are not only made in the present, separated from the past and the future, but that the past and the future are part of every such decision. Using the example of the metropolitan area of Brno, Czech Republic, a postsocialist space, we show how differently socialist and postsocialist societies can be temporally normalized. At the same time, contemporary postsocialist mobility decisions are still influenced by socialist time norms—chrononormatives. Our main research question is how everyday mobility decisions between the car and public transport are influenced by the temporal norms of the society. To answer this question, we have employed a mixed methods research design that has been divided into a quantitative analysis of mode choice for individual trips and a qualitative analysis of statements about mode choice. Key findings include the relationship between transport-mode preference and a particular chrononormative. We identify four contexts—time, routing, alcohol, and everyday activity planning—in which the chrononormatives associated with the car and public transport are substitutable. It is on this basis that we introduce intentional automobility. *Key Words: chrononormativity, decision-making, intentional automobility, multiplicity of durations, non-Western experience.*

Automobility, since its widescale adoption in the twentieth century, has changed the spatial organization of human activities. The car has become a permanently ingrained part of regular individual mobility, has contributed to an increase in the daily intensity of mobility, and has made it relatively easy to reach even more distant places. In the hyperautomobility narrative, the car's penetration into daily life is interpreted as a process leading toward an automobile-centered system, characterized by the extensive use of cars and growing car dependency, both of which have had impacts on the spatial design of contemporary cities (Canzler 2008; Martin 2009). In contrast to hyperautomobility stands the peak car narrative, which highlights the sustained decline of car use and emphasizes the importance of alternative transportation modes, especially in densely populated areas (Goodwin and van Dender 2013; Klein and Smart 2017). Both narratives have proven fertile in European-American countries. Our aim is to confront these narratives from the position of the non-Western experience of automobility. The postsocialist context provides a cultural-historical framework within which the acquired findings reflect the call to decolonize the production of knowledge and to counterbalance the hegemonic discourses produced by the Western-centric imaginations (Chakrabarty 2008; Edensor and Jayne 2012; Jehlička 2021).

Postsocialist Central and Eastern European (CEE) countries feature historical, cultural, political, and social peculiarities that have had a significant impact on the functioning of transport infrastructure and mobility habits. During the socialist era, substantial infrastructure development coupled with the operation of a dense public transport network established conditions for the development of individual mobility in CEE (except for cycling infrastructure). The postsocialist transformation exposed these countries to free-market forces and diversified transportation choices, leading to a gradual increase in car use. Thus, postsocialist urban spaces have relatively efficient public transport on the one hand, and high levels of automobility on the other. At the same time, the infrastructure for cycling remains very underdeveloped. In such environments, there are

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specific conditions that can produce different contexts in which people make decisions about transport modes.

In the Czech Republic and, more specifically, Brno, an example of a postsocialist city, the narratives of hyperautomobility and peak car coexist and become part of debates in which some use them as an argument for the development of public transport services and others for the development of automobile infrastructure. The main aim of this article, however, is not to address the question of whether Brno is heading toward a higher or lower dependence on automobility and, therefore, whether it will become part of the hyperautomobility or peak car narratives. The aim is to offer a different narrative of automobility, one from the postsocialist space, namely, that of *intentional automobility*. Intentional automobility is not a universal narrative of postsocialist mobility but is an example of another narrative of automobility derived from a non-Western setting. The intention describes the possibility of making contextual choices based on a specific situation, where a person may choose to drive or take public transport (cycling is omitted because it is not a realistic option in our spatial context) at different times without having to choose until the last moment.

The intentional automobility narrative is derived from specific individual mobility decision-making and, as such, is not easily confronted with the hyperautomobility or peak car narratives (Simonsen 1991). Although intentional automobility is derived from the experience of only one time period in 2017 and 2018, when the data were collected, the intentions of this period are part of a longer term process of transformation in postsocialist society. Intentional automobility does not work with linear time, and making decisions about transport mode is not understood as a single point in the present. Instead of the classical division of time into a discrete past, present, and future, common to both hyperautomobility and peak car narratives, we work with time as duration in the Bergsonian sense (Bergson 1911; Deleuze 1991; May 2005), making decisions as an actualization process linking actual choices to the past and the future (McCormack and Schwanen 2011).

By showing how intentional automobility blends the past with the present in today's transport-mode decision-making, it moves beyond an understanding of the present as a point in time and becomes part of a narrative about the long-term transformation of postsocialist societies. Discussion about the particularities of postsocialist automobilities and the introduction of this new intentional automobility narrative is in keeping with broader processes of geopolitical changes in knowledge production concerning transport geography, mobility studies, and urban studies (Broz and Habeck 2015; Schwanen 2018a). Using the analytical framework of a nonchronological conception of time, this research goes beyond mainstream operational and economic questions when approaching everyday automobilities (as suggested by Wood et al. 2020) and stresses the importance of individualization, situatedness, and multiplicity of temporalities related to mobility behavior in urban settings.

Peak Car and Hyperautomobility

The development of the modern motor vehicle began in the second half of the nineteenth century in multiple areas and spread across industrialized Europe and North America. Many obstacles were overcome, and many technological advances were made during this process (Rodrigue, Comtois, and Slack 2016; Heitmann 2018). The result of this progress was a gradual expansion of a new transportation mode that, in specific spatial, cultural, and social contexts, offers greater speed and spatiotemporal flexibility than other transport alternatives (Hoyle and Smith 1998). Conversely, no-car households began to be burdened and disadvantaged by the car-oriented system. Nonetheless, in developed countries, cars have become the dominant mode of transport for daily mobility among large segments of both the urban and rural populations (Hanson 2004; Docherty, Giuliano, and Houston 2008). This car-oriented system has led many authors to develop the concept of automobility (Sheller and Urry 2000; Featherstone 2004; Urry 2007).

Cars have today become so ubiquitous that they now heavily influence the mobility modes and lifestyles of urban and rural residents as well as the whole geographic environment. They are frequently seen as a crucially important source of change in the geographic organization of society. They enable many people to travel quickly and independently, and thus, they make accessible places located outside of public transport networks (Black 2003; Docherty, Giuliano, and Houston 2008). The spatial expansion

of cities, the processes of suburbanization and deurbanization, as well as temporal changes in society, including desynchronization and the relative weakening of peak hours, are clear consequences of the car (Marada 2006; Urbánková and Ouředníček 2006). Urban regions have been transformed from concentrated spatial forms defined by radial and centripetal interactions into spider-web-like structures in which centrifugal and lateral interactions prevail (Gutiérrez and García-Palomares 2007). Thus, Urry (2007) considered automobility to comprise a self-promoting and self-expanding system that reproduces and strengthens interconnected changes and mobility behavior and, on the contrary, weakens all other mobility possibilities, modes, and habits.

Freund and Martin (2007) and Martin (2009) claimed that automobility has reached a new stage in contemporary societies, mainly in the United States and elsewhere in the West, labeled hyperautomobility. In these countries car usage has grown in both intensity and extensivity in recent decades, as mass suburbanization and the attendant urban sprawl have necessitated longer drives by more people. Thus, the average car occupancy rate has diminished as well. An automobile-centered society with even greater dependency on cars has clearly emerged, and alternative transport modes have become increasingly marginalized. Although the negative side effects of the car are clearly recognized, automobility is still heavily protected and supported in some neoliberal political contexts because many economic and political agents have invested so much in its development (Walks 2015). In some rapidly developing economies, automobility is currently forming—motorization levels are growing, and cars are frequently seen as aspirational or valuable goods (Hansen 2017).

At the same time, some researchers employ peak car narratives to describe a decline in car use rates and even a cessation of car travel throughout the world (Goodwin and van Dender 2013). This trend has been studied in the United States, Australia, the United Kingdom, Sweden, Norway, the Netherlands, and Japan (e.g., Delbosc and Currie 2013; A. Bastian and Börjesson 2015; Oakil, Manting, and Nijland 2016; Stapleton, Sorrel, and Schwanen 2017). The leveling off or even decline in per-capita car travel can be most prominently observed among young adults and in large urban and metropolitan areas that are well-served by public transport and enable safe pedestrian and bicycle travel. Analyzing the U.S. situation, Klein and Smart (2017) clearly demonstrated that, overall, millennials (adults born in the 1980s or 1990s) own fewer cars than their parents did at the same age, live in denser areas, and spend more money on transit fares. Stapleton, Sorrel, and Schwanen (2017) also stressed the role of increasing urbanization in Great Britain.

Both of these narratives describe long-term transformation while understanding time in its linear form, with clear separations between past, present, and future. In the case of hyperautomobility, it is a linear projection of the past into the future. In the case of peak car, it is a change in trend, where the past trend changes into a new future trend. The mobility decision-making of individuals then takes place only in the present, without any explicitly articulated link to the past or the future. The linear conception of time, or rather the separation of past, present, and future, does not allow long-term narratives about automobility to be mixed with actual decision-making about everyday mobility.

Everyday Automobilities

The shift from the long-term transformation of mobility to everyday strategies of individual mobilities is made possible by the blending of different scales (Marston, Jones, and Woodward 2005) and the understanding of the past as part of the present (King 2000; Bevernage 2016). In other words, past daily routines and individual strategies are, in some form, part of present decision-making, making them part of the long-term transformation of mobility. Individual everyday strategies in contemporary cities are complex and related not only to the spatial design of contemporary cities but also to questions of social exclusion, the atrophy of public space, and the weakening of communities and public life. On the one hand, the car is seen as a highly attractive mobility tool enabling the flexible and efficient performance of daily routine activities. The automobile, however, can also be seen as a costly, time-consuming burden. In some contexts, people cannot freely choose a transportation mode; they have to drive if they wish to succeed in the current automobile-centered system (Canzler 2008). Drivers do not need to regularly plan and manage everyday travel. They can simply go by car, which does away considerably with the need to make frequent small mobility decisions

(Canzler 2008, 107). Transport alternatives such as public transport can be, moreover, seen as something unfamiliar, unknown, or even inaccessible because of the need to pay a fare or to travel with "strangers" (Henderson 2009). The car is thus an island, a private and comfortable cocoon in a complex and demanding world; it is a tool for reaching spatially distant places in an individualized and pleasant manner. Theorists view it as a tool for "secessionist automobility," as it enables users to be present in a known, comfortable "home" even when traveling (Henderson 2009; Kent 2015).

Everyday automobility is, however, even more complex. The relationship between the body, feelings, and emotions toward cars has been broadly examined by recent research. Rooted in cultural economics, Waitt and Harada (2012) argued that theorizing about how driving practices are felt in specific places helps create "a more nuanced understanding of the social relations and cultural practices associated with driving as a habit" (3308). A deeper understanding of the interdependence of embodied mobility narratives and processes related to production, consumption, regulation, representation, and identity is necessary to clarify the relation of car dependence and climate change (Waitt and Harada 2012; Waitt, Kerr, and Klocker 2016). Understanding the motivations and feelings of people using or driving a car is then a crucial factor in setting strategies and policies for sustainable mobility (Kent 2015).

Automobility is often perceived as an expression of comfort, convenience, and relaxation. The corporeal feeling and the role of sensory experience are considered both individually and culturally conditioned. The way in which feeling the car is routinized affects and shapes automobility in the context of other practices (Sheller 2004; Kent 2015). Research on suburban driving in an affluent Sydney suburb, for instance, shows the ongoing pleasures of driving cars, which influence the daily routine and temporal human practices during everyday life and structure the understandings of self, home, and city (Waitt and Harada 2012).

"Feelings for cars" can be based on various experiences and viewpoints. Waitt, Harada, and Duffy (2017) interpreted the reasons why people decide to drive cars within the framework of pleasures associated with listening to sound or music during short car trips. The emotional bonds with a car through "driving-to-music" shape emergent gendered subjectivities and affect interconnections between driver and car. A specific relationship with cars was investigated by Dowling (2000), who focused on how car use is constituted through cultures of mothering. By combining an analysis of women's motor vehicle use and cultural-feminist understandings of mothering, the study shows that the car helped suburban women (mothers) get to paid work, drive their children around, and keep a household running.

Feelings and emotions in relation to the car can also have negative connotations. Emotional ties with cars are complicated by life histories and might be ethnically conditioned. Embodied dispositions against the car among Chinese migrants in Sydney serve as an example of the coexistence of multiple mobility cultures, which can be shaped by transport habits in the location of origin (Kerr, Klocker, and Waitt 2018). When a residence is changed, people encounter greater difficulty in finding suitable modes of mobility during their daily lives. According to Kerr, Klocker, and Waitt (2018), in this context, cars represent a mode associated with ambivalent feelings, discomfort, fear, and hostility. A pragmatic approach to car use was also documented by Green et al. (2018), who stated that young adults perceive cars simply as mundane tools in a local mobility network. Cars are not desirable and are not associated with prestige and better emotions; rather, they are just an important part of sociospatial practices and the interdependencies of mobility.

Again, as in the previous case of long-term transformations, a similar problem of working with time can be identified in these studies. Time, in these studies, is used only in the present, which makes it impossible to connect themes of everyday automobility with narratives about the long-term transformation of automobility. The opportunity to study the differences of everyday automobility in the context of the longer term development of specific societies thus remains untapped. This is an analytical challenge that has already been formulated through the *multiplicity of durations* by, for example, Massey (2005, 9, 24). The presentation of a non-Western narrative of automobility is linked to the acceptance of this challenge and the presentation of intentional automobility, in which decision-making is understood, in the words of Deleuze, as the actualization of virtual possibilities or, in Massey's words, as a multiplicity of durations.

The Postsocialist Narrative: Chrononormativity of Intentional Automobility

Temporal normativity has been increasingly theorized within a number of (not only) geographical disciplines. Different traditions thus see the essence of a society-wide temporal normative within the life limits of the individual (Hägerstrand 1982), whereas others deem it to be within the rhythmicity of the body itself (Lefebvre 2004), the dominance of chronological time (Rämö 1999; Crang 2005), the ability to participate in accelerated capitalist societies (Sharma 2013, 2014), and more. Although these perspectives are developing more or less in parallel without mutual discussion, they still have one thing in common. All of them reject a universal time that is valid for everybody. Despite the diversity of terms, such as historical present (King 2000), polyrhythmicity (Lefebvre 2004), multiplicity of durations (Massey 2005), heterotemporality (Chakrabarty 2008), heterochrony (Challand 2009), multitemporality (Klinke 2013), multiple temporalities (Jordheim 2014), and the temporal structure of the present (Bevernage 2016), all strive for essentially the same thing: the abandonment of one universal time and focused attention on the coexistence of different times that enter into various interrelationships, often not completely equal. Because of this inequality, a temporal normative is theorized.

In this article, we are inspired by a tradition that has its roots in queer studies: chrononormativity (Freeman 2010). Normative time in this tradition can be understood as a temporality that establishes how time should be organized, managed, and experienced and disregards the possibility of a plurality of temporalities (Cooper 2013). Chrononormativity is then "a way in which normative, hegemonic time is used to organize the individual gendered and sexed body toward maximum productivity" (Freeman 2010, 3). Using this perspective, chrononormativity is criticized as a social assumption about the sequence of life stages—a heterosexual relationship, roommate, marriage, children, career, divorce, pension, and so on. These phases are considered normal. There are expectations about their "right" order and the "right" time for an individual to go through these during life (Hargita 2016). Freeman (2010) postulated that "chrononormativity is a mode of implantation, a technique by which institutional forces come to seem like somatic facts. Schedules, calendars, time zones, and even wristwatches inculcate what the sociologist Evitar Zerubavel calls 'hidden rhythms,' forms of temporal experience that seem natural to those whom they privilege" (3).

Each society creates its own institutional tools to institutionalize time and then inculcate it into the bodies of its members—chronobiopolitics. These chronobiopolitics are often compared between different societies. Here we can use the anthropological tradition of normative time, derived from the "time of developed societies" and Massey's (2005) thinking about geographies of power, where turning space into time produces single linear historical trajectories. Normal time is the time of developed societies that evolves in the "right" way. The existence of the present is part of this norm, which allows societies to decide their own future. This norm then places a certain delay on the past of all other "developing" societies, a time before the phase whereby "developed" countries became developed. Fabian's (1983) concept of *allochronism* then uses time to stabilize the boundaries of "we" and "they," those "normal in time" and those "abnormal in time," respectively (Klinke 2012; Doboš 2020).

The period of socialism undergone by postsocialist countries represents just such a deviation from the normative development of "developed" countries. In other words, the temporal experience of Western society does not include the socialist period. Using this imagination, postsocialist societies are delayed in their development. In accordance with the only correct development trajectory, they are doomed to be forever following and catching up to the "developed" countries. Challand (2009) offered the example of European societies that joined together after World War II based on the common idea of condemning the Holocaust, assuming it is a common experience of the whole European community. Kovàcs (2006) showed, however, that after the 1989 collapse of the Soviet Union, the socialist period was a more recent trauma for postsocialist societies, marking a significant split in the common history and unified idea of the entire European community. Allochronism is applied here in such a way that Western societies continued to consider their development as valid throughout Europe, and the socialist period appeared in a part of their community as a kind of blind and closed stage of development.

To take this socialist stage of societal development fully into play and grant postsocialist societies the possibility of their own future, we need a different conception of time than is usually used in mobility research (Bissell 2014). Hyperautomobility and peak car both use a standard approach to time—it is a line, infinitely divisible and infinitely extended. The division can proceed without end, instants within instants (May 2005, 41). Instead of this linearly flowing and infinitely divisible chronos, in our analysis we use the Bergsonian–Deleuzian conception of time—duration (*la durée*). Duration is a nonchronological conception of time (Hodges 2008, 410). It is a unity of past, present, and future (May 2005, 61). Deleuze (1991) nontrivially showed that "the past and the present do not denote two successive moments, but two elements which coexist: One is the present, which does not cease to pass, and the other is the past, which does not cease to be but through which all presents pass" (59). He reversed the relationship between past and present when he claimed, "We do not move from the present to the past, from perception to recollection, but from the past to the present, from recollection to perception" (May 2005, 55). In other words, in the context of duration, the past always coexists with the present, the past is "contemporaneous" with the present that it has been (Deleuze 1991, 58). The present exists in actuality, and the past exists virtually (May 2005, 47). If we use duration in mobility research, it means that the virtuality of the past is an active agent of its transformation (Bissell 2014, 1961), and the decision-making of everyday mobility is a space–time of variable duration and intensity through which multiple temporalities fold together (McCormack and Schwanen 2011, 2808).

If we link chrononormativity with duration, we do so because we want to show how state socialist chronobiopolitics is still present in the bodies of the members of postsocialist society, how socialist chrononormativity coexists with postsocialist chrononormativity, and how actual mobility decisions are influenced by these past (chrono)norms. We are shifting the original purpose of chrononormativity, however, when we link it to duration and use it to describe the coexistence of two chrononormatives from different developmental phases of one society (socialist and postsocialist). But what are we considering when we talk about socialist and postsocialist chrononormativity? Some authors associate society's relationship to time with its relationship to diversity (M. Bastian 2011). Totalitarian or authoritarian societies use the unification of time as a strategy for regulating social diversity (Bevernage 2016). Stavrides (2013) combined authoritative (both Nazi and socialist) ideas about modern society with the synchronized "choreographed" movement of the masses and the uniform temporality of machine civilization. In the real life of socialist societies, this meant organizing and synchronizing a large part of social life (employment, schools, kindergartens, doctors, eating, transportation, etc.). This temporal synchronization of society (i.e., the willingness to synchronize with others) is hereafter referred to as *socialist chrononormativity*. In other words, socialist chronobiopolitics is based on the external synchronization of individuals and thus on the temporal homogenization and temporal standardization of society.[1] In contrast, postsocialist chronobiopolitics represents the intermingling of a large number of different individualized and thus seemingly desynchronized times. It is based on the temporal heterogeneity and temporal flexibility of society. To contemplate a postsocialist future and thus propose a non-Western view of automobility, it is necessary to acknowledge that the socialist chrononormativity of the externally synchronized society is still present in the new seemingly desynchronized postsocialist society. Respectively, to show the potential of intentional automobility, the present willingness to synchronize with others coming from the socialist chronobiopolitics must be acknowledged in actual decisions about everyday mobilities. This brings us to the research question of this article: How are everyday mobility decisions between the car and public transport influenced by the temporal norms of the society?

Methodology

The empirical research focuses on the mobility choice between car and public transport in the metropolitan area of Brno, Czech Republic. We consider public transport only trains, trams, trolleybuses, and buses. There are two main reasons for this choice. First, these are the main modes of transport in the Brno metropolitan area. Although in some Western countries, cycling forms a significant part of everyday mobility (Oldenziel et al. 2016), it still achieves only negligible modal split shares in the context of

postsocialist states. Second, cars and public transport represent transport modes with different temporalities. Whereas public transport represents a shared, synchronized, and inflexible mode of transport that corresponds to the chrononormativity of a socialist society, the automobile represents an individualized, seemingly desynchronized, and flexible mode of transport that corresponds to the chrononormativity of a postsocialist society. The coexistence of these two chrononormativities[2] is the condition for the emergence of intentional automobility.

We employed a mixed-methods research design comprised of four stages: (1) interviews, (2) interview data quantification, (3) situational analysis, and (4) a content analysis of interviews. During the first phase, semistructured interviews were held in 2017 and 2018 with forty informants from the city of Brno and its broadly defined metropolitan region. These informants were ordinary users, not professional drivers or traffic decision makers in Brno. They were selected randomly using the snowball sampling method, taking into account primarily their relationship with the car. Twenty interviews were held with people who had recently (as in, at most, six months before the interviews) gained the ability to drive or use a car regularly (by reaching the required age, getting a driving license, overcoming illness, buying a car, etc.), and twenty were held with those who had recently (again, at most, six months before the interviews) lost this ability (due to illness, injury, a car accident, car defect, fear, loss of a driving license, environmental decision, etc.). These two types of partners were chosen because they had recent experience with the effects of changing regular car usage rates within their daily mobility habits. Moreover, because they had recently switched transport modes, they could also easily compare the qualities, attributes, and implications of transport modes.

The second phase involved the quantification of selected indicators from interviews. Each interview was analyzed, and key anchor points in the interviewees' daily activities were identified (home, work, the closest public transport stops, etc.), as were the external schedules that the interviewees had to conform to and the contexts that influenced their behaviors. Based on these forty interviews, we identified 406 routine, regularly repeated trips, fifty of which could not be quantified due to a partial lack of data. The other 356 trips were assigned temporal and spatial coordinates, entered into a database, and then used in the next phase of the analysis.

The third stage of the study involved situational analysis. We used knowledge of the individual daily or regular spatiotemporal routines to compare the durations of the same trips taken by car and public transport. Thus, for each of the 356 regular journeys, we made two calculations, one for time taken to travel by car and the second by public transport. We always calculated door-to-door trips; thus, the duration of each trip includes more than just the time spent moving in a vehicle (whether car, train, tram, trolleybus, or bus), but also time spent walking to and from home or workplace, waiting at tram stops and traffic lights, and so on. We calculated all durations in minutes using maps, public transport timetables, and the journey-planner feature in Google Maps as the main data sources. Google Maps includes typical traffic conditions in its calculations, taking into consideration regular congestion during peak hours. As a result, we compared in detail the time it takes to make the same trip by car or public transport in Brno and its metropolitan region. The data for each informant were analyzed at both the level of all trips and the level of individual trips.

The fourth phase entailed a content analysis of the interviews. As part of the analysis, we looked at relationships in the informants' statements about automobility and time, specifically time synchrony and time flexibility. The interviews were coded, for example, with codes such as "time-saving," "financial savings," "dependence," "independence," "responsibility," "discomfort," and so on. During secondary data sorting, we inductively derived three main axes that distinguished statements about automobility according to their relation to time. We identified a resources axis, a symbolic axis, and a responsible axis. These axes constitute analytically valuable output because they demonstrate that informants prefer automobility with time flexibility in some contexts but that the same informants also prefer public transport with synchronization in other contexts. Thus, our interviewees' attitudes toward automobility are generally not invariable but can change based on context. This finding led to the last analytical step, in which we focused on reexamining the interviews for specific contexts that have the ability to influence the meaning of the car and, therefore, the choice of transport mode. Based

on such specific contexts, we have formulated a contextual narrative of postsocialist automobility—intentional automobility.

Contextualization of the Research Area

Brno is the second largest city in the Czech Republic, a postsocialist country in Central Europe. The population of the city is approximately 400,000, and the metropolitan region is home to approximately 700,000 inhabitants. Since 1989, the region (as well as the postsocialist space in general) has been experiencing a significant institutional, social, economic, and cultural transformation. The consequences are manifested both by the physical transformation of the urban structure of the city and by sociospatial changes in human behavior, including mobility. The originally industrial economy transitioned into a postindustrial, service-based neoliberal economy. Suburbanization began in the 1990s, resulting in residential and commercial development growth that now exceeds the administrative borders of the city. These changes have complicated the city's and the region's spatial structures. New subcenters outside the traditional compact city have emerged, attracting new inhabitants and businesses and recentralizing the spatiotemporal patterns of growing city regions, as seen in other postsocialist metropolitan spaces (Mantey, 2022). This process has been accompanied by growth in transport network complexity. The region's radial spatial organization is still clearly recognizable, however (Toušek et al. 2005; Statutární město Brno 2014).

The whole area is covered by a dense public transport network, consisting of urban and suburban train, tram, trolleybus, and bus lines that run frequently throughout the day. Extensive investments in the public transport network were inevitable during the socialist era because road and car transport were intentionally undeveloped (Pucher and Buehler 2005; Siegelbaum 2011; Seidenglanz et al. 2016). Although the socialist plans for (public) transport were similar across the territories controlled by the Soviet Union, the subsequent transformation after the collapse of the entire empire was spatially differentiated. In the post-Soviet republics (especially in Central Asia), the promotion of public transport after 1989 was significantly problematic, prompting new strategies of informal transport.[3] The postsocialist states (especially CEE countries) showed a higher degree of efficiency in exploiting the heritage of robust transport infrastructure (mainly due to foreign direct investments, European Union subsidies, and shared regional knowledge with Western European countries).

The profound postsocialist political, social, and economic transformations have significantly altered Brno's transportation market, with a rapid increase in car importance as the fundamental change. The underdeveloped road network and low car-ownership rates in socialism were replaced by mass ownership of cars. In 2020, there were 561 passenger cars (not including trucks, motorcycles, etc.) per 1,000 inhabitants in Brno, a car-ownership rate comparable to those of large Western cities (Brněnské komunikace 2021). Since the 1990s, along with the public's initial opposition to urban planning, the growth of automobiles has been a factor in the deteriorating quality and livability of streets and public spaces in general. Proponents of alternative and sustainable modes of transport have only recently become publicly active. Similarly, only in recent years has a certain increase in the popularity of previously sporadically used means of transport, such as bicycles, been perceived. For example, the increase of publicness in postsocialist cities was documented by Barnfield and Plyushteva (2016), who described the rise of urban public life through the example of cycling activism's growing significance in everyday life and mobility in Sofia. Compared to some Western cities (e.g., Copenhagen, where 29 percent of all trips are made by bicycle; Henderson and Gulsrud, 2019), however, the bicycle-mode share of trips in postsocialist urban mobility still remains low (up to 5 percent); in Brno, only 1 percent of daily trips are made by bicycle (Statutární město Brno 2017).

Over the past thirty years, despite the dramatic increase of automobility, Brno's public transport system has not collapsed. Without extensive infrastructure growth, it has maintained its position within the urban and metropolitan area largely due to organizational changes that have led to the tighter integration of urban and suburban services, faster and better connections, and the establishment of new tangential lines (Mulíček and Seidenglanz 2019). Ridership is, therefore, still high. Modal split data show that 43 percent of Brno residents use public transport for traveling within the city. Somewhat surprisingly, only 38 percent travel by car

(Statutární město Brno 2017). The reasons are probably the gradual improvements that have been made to the public transport system in combination with unresolved systematic issues related to cars, such as a lack of parking spaces, uncompleted major urban roads, and high traffic volumes.

Brno and its metropolitan region represent a suitable model space for our case study of mobility behavior as local residents can easily use either a car or public transport for most of their regular mobility needs. The postsocialist space of Brno, with its hybrid transport nature, offers a specific spatial laboratory for the study of intentional automobility, which is responding to the need to rethink the universalization of transport and mobility research to assemble new insights on transport from different sociospatial contexts and local knowledge (Schwanen 2018b; Verlinghieri and Middleton 2020).

Socialist society exhibited a considerable degree of time synchronization, a low degree of temporal heterogeneity, and, conversely, a very strong temporal normative derived from the organization of industrial production (Osman, Ira, and Trojan 2020). Authors who deal with societal time unification from the transport perspective also offer examples such as the following:

> For a significant number of people employed in the industry, the everyday pace of a working day was thus rhythmized by factory working hours starting at 6.00 a.m. and ending at 2.30 p.m. This anchoring rhythm was then transmitted to other systems connecting places of residence, work, and consumption into a coherent space-time unit. Public transport timetables, nursery and crèche opening hours, or medical care opening hours are examples of non-industrial functions that were to some extent synchronized with standard working hours and secondarily created a specifically rhythmic space-time for subjects without a direct link to an industrial plant. (Mulíček, Osman, and Seidenglanz 2010, 201–02)

This social chrononormativity did not end with the collapse of socialism, however; it is still part of a much more heterotemporal postsocialist society. Mulíček, Osman, and Seidenglanz (2015) offered a comparison of the temporality of bus transport in the Czech Republic between 1989 and 2009 that shows that, whereas in 1989 bus transport was dominated by one main rhythm associated with the work shifts of industrial production, in 2009, it is no longer possible to find such a dominant rhythm, and bus transport is significantly more desynchronized and heterotemporal. By focusing on the specifics of the temporal normative in relation to everyday automobility, the article extends the recent mobility research from postsocialist (e.g., Tuvikene 2018; Petříček and Marada 2022) and post-Soviet contexts (e.g., Sgibnev and Vozyanov 2016; Rekhviashvili and Sgibnev 2020) and proposes a novel perspective on automobility based on the experience in this midsized Central European city.

Empirical Analysis

The empirical part consists of three sections. The first ("Travelers Versus Trips") justifies why we decided to drop the informant as the unit of analysis and, respectively, why we used single trips instead. The second section ("Mobility Versus Chrononormativity") shows how the reasoning behind transport-mode choice is linked to a specific temporal norm (the possibility of shared or individual temporalities). The third section ("Contexts Revealing Intentional Automobility") shows specific situations in which only the context determines the specific choice of transport mode.

Travelers Versus Trips

The spatiotemporal environments in which our informants live determine the situational conditions. These are established mainly by the spatial and temporal coordinates of our interviewees' activities. These locations and times inevitably affect the attitudes of individual interviewees toward cars and other available mobility modes. Thus, some situational conditions lead to the more intensive use of cars, whereas others result in less intensive automobility and more frequent public transport use.

Figure 1 depicts the duration of all regular weekly trips taken by each informant and compares the differences in travel time if all their trips were taken by either car or public transport. There is no significant correlation between the data presented in the graph (trip durations and travel time savings through use of a car) and any of the interviewees' situational conditions. The travel time savings of driving could be the same for a person who travels extensively (thirty hours per week) and a person who regularly travels very little (three hours per week). The

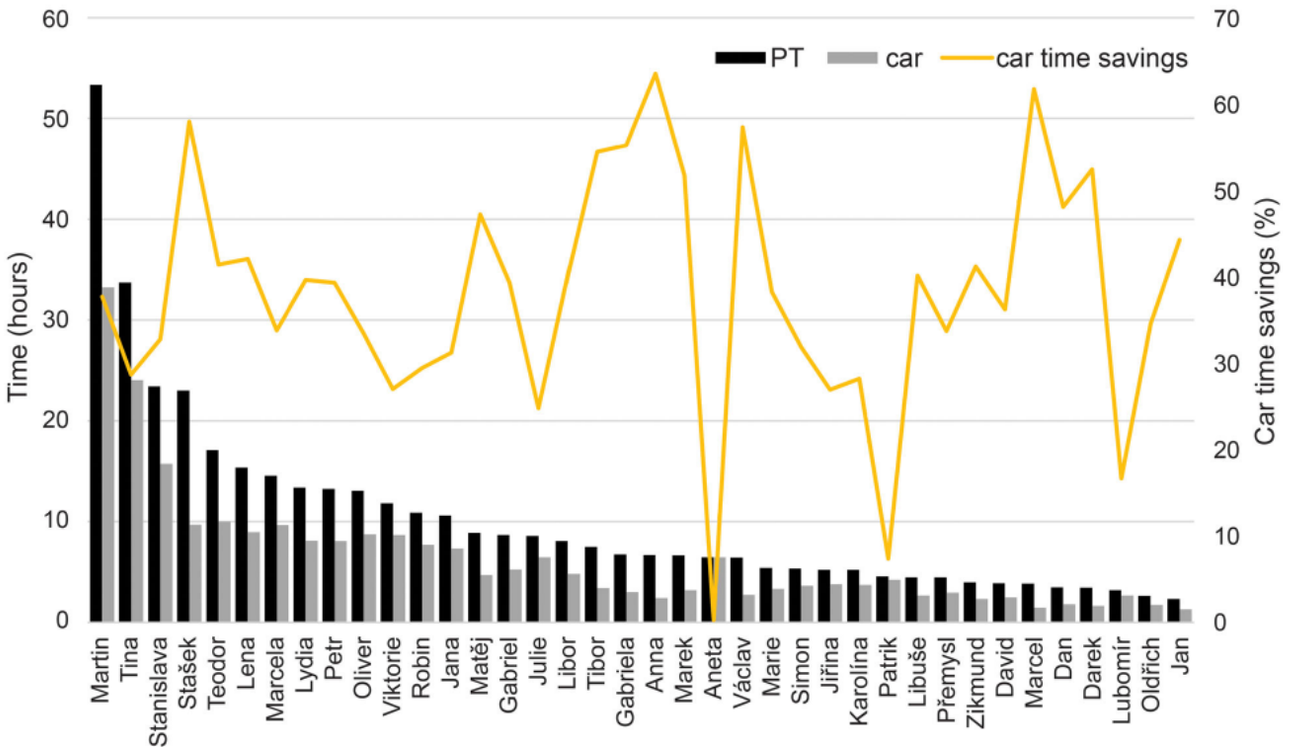

Figure 1. Weekly trip durations (in hours) per individual and travel time savings for car use (%). *Note:* All regular geolocalized trips and trip durations are weighted by their frequency. PT = public transport.

Pearson correlation coefficient between the length of trips made by public transport and the travel time savings of car use is insignificant (−0.021). Interestingly, spatial and temporal configurations aggregated on the level of each interviewee's total mobility volume do not play any relevant role in understanding the effects of situational conditions on transport-mode choice. The noncorrelation of these two variables is a consequence of the very diverse spatiotemporal nature of individual trips, which apparently should not be evaluated in aggregate. Instead, decision-making about transport-mode use should be studied separately for each trip because each trip involves different spatial and temporal considerations.

Figure 2, therefore, presents each trip separately. The data clearly demonstrate that, in the case of longer trips, public transport competes poorly with car travel in terms of trip duration. For trips longer than thirty minutes, the curve representing the duration of public transport trips is almost always above the curve depicting car travel duration. In contrast, in the case of shorter and the shortest trips, public transport is frequently the faster mobility option. Thus, trip duration seems to be one important consideration influencing rational decision-making about transport modes: The shorter the trip, the higher the probability of choosing public transport, and vice versa.

An analysis of trips taken by individuals who have access to both a car and public transport, and can therefore choose their mode of transport, confirms these findings. The average duration of a public transport trip is forty-nine minutes, whereas the average duration of a car trip is seventy-four minutes. Our data indicate that cars were used more often for longer commutes. Hence, the temporal aspect of human mobility is one factor contributing to transport-mode choice.

For this reason, we proceeded to an individual trip-level analysis. There are limits to this decision: On the one hand, the omission of trip-chaining as an important factor in understanding individual decisions for selecting particular commuting patterns and activities could limit the richness of the results. On the other hand, the subsequent qualitative analysis shows that the reasons for the choice of transport mode differ for each trip separately. Conversely, much of the richness of the data could be lost if we analyze motivations only at the level of individual travelers.

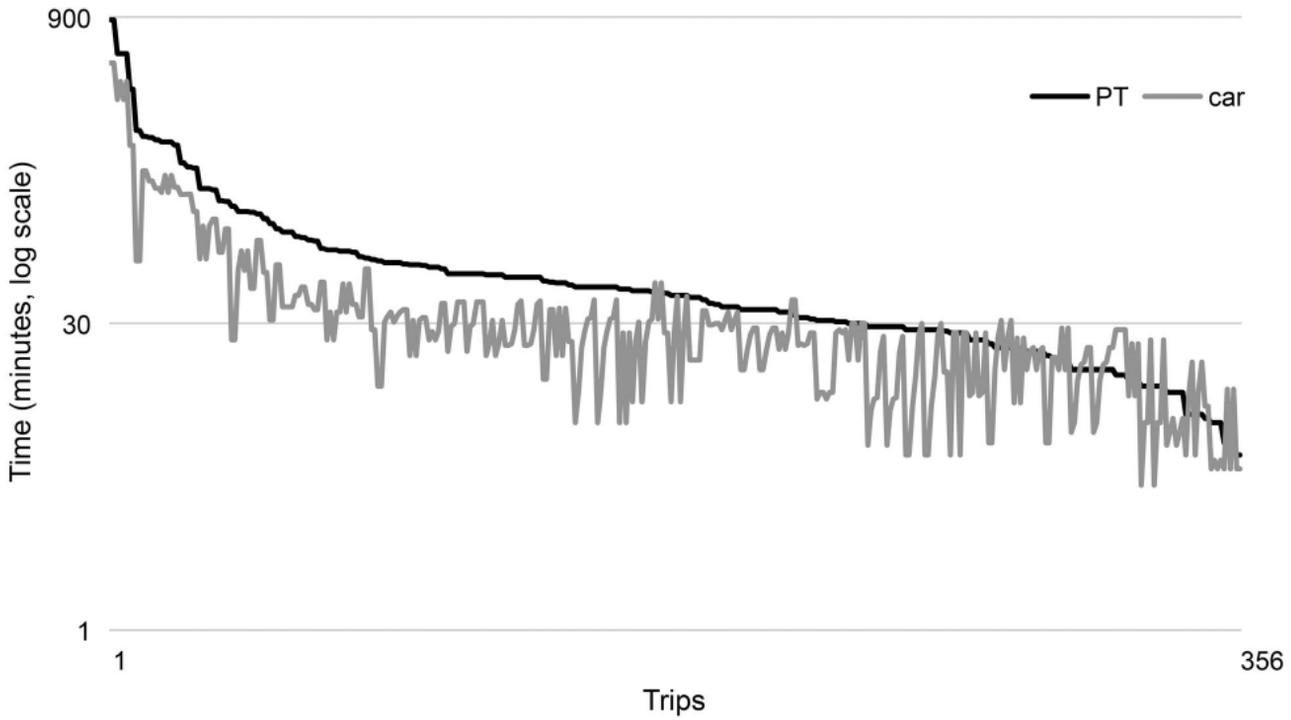

Figure 2. Duration of trips—door-to-door times. *Note:* Trips are arranged in descending order based on trip duration by public transport (PT).

Mobility Versus Chrononormativity

In this section we want to show that narratives that justify the choice of automobile or public transport value different properties of time. Specifically, we note how the preference for public transport is linked to that of sharing and synchronization with other people, whereas the preference for the automobile is linked to a desire for individual and flexible time organization. We show this link sequentially on three axes: the resources axis, the symbolic axis, and the responsibility axis. The narratives for public transport and the preference for shared temporalities are always placed on the left side of the axis, whereas the narratives for automobility and the preference for individual temporalities are placed on the right side of the axis.

The first axis is the resources axis. At opposite ends of the resources axis are the preference for money and the preference for time. Whereas proponents of automobility highlight the importance of time savings, which they are willing to pay for, statements revealing a more restrained approach toward automobility tend to emphasize saving money over time. They stress that automobiles are not necessary and expensive. Cars must be purchased, but they are poor investments—a new automobile quickly loses value, and used cars can also be expensive when repairs are factored in. The costs associated with operating a car are also emphasized. Financial concerns are often connected with a certain conservatism, everyday routine, and predictability—the preference for money is associated with a willingness to adapt to the times of others, to timetables, to synchronize and, therefore, to use public transport.

On the other end of the resources axis stands the preference for time. Saving time, time flexibility, and time freedom transform the automobile into a special tool that allows users to buy time. For such people, money is secondary, a means to an end, that is, for saving time. Informants located on this side of the axis describe their lives as fast-paced, active, and even hectic, and they speak negatively about wasting time. Conforming to timetables limits freedom and wastes time. The preference for time over money is thus associated with an unwillingness to adapt to the times of others and thus to use public transport.

> The most valuable thing is probably time. There is no substitute for it. But it depends on how you value time. If you just say you will take public transport, and you waste those minutes in your life, or something, they essentially add up to something. I travel a certain amount of time per week, and I convert that figure into money. So, I end up with a number. I say to

> myself, is it worth those minutes of my life? You will usually say, yes. (Oliver, January 25, 2018)

Oliver's statement demonstrates how automobility allows drivers to exchange time for money and vice versa. Time, in some instances, is an exclusive resource, something that some people can buy but others cannot. Some people, conversely, depending on their situation in life, have more time than others (students, people who work from home, people who live within walking distance of work, etc.) and, therefore, have no need to "purchase" time. Automobility, however, cannot always buy time, especially when we consider driving during peak hours, looking for parking spots, or traveling only short distances. The resources axis shows how the preference for a fast, flexible, career-oriented life is related to the preference for a car (Table 1).

The second axis is the symbolic axis. We discovered that the automobile has not only functional meaning but also many symbolic meanings. In the postsocialist Czech Republic, the car is still a major status symbol. Thus, it represents a social norm; owning a car is part of being, and considering oneself to be, normal. For example, informants spoke about how getting their license marked their ritual acceptance into the adult world. People need to maintain their driving skills. Most young informants stated that, on the weekends, they drove their parents' cars so that they "didn't forget how to drive." Driving an automobile has thus become a basic element in mobility literacy. In a similar way, the car is related to social norms connected to the ideal family. The ideal family should own not only a house but also a car. The car is a tool to reconcile the different demands of individual family members. In addition, cars have other meanings related to brand, age, and condition. Thus, automobility is related not only to physical mobility but also social mobility. On one side of the symbolic axis, the car is seen as a possibility, an opportunity, a condition for growth, and a competitive advantage. To some extent, it is a symbol celebrating individuality, self-development, and personal success, all of which were impossible to develop in the socialist period. Whereas the gray of socialism systematically homogenized society and leveled class, and did the same to individual differences, postsocialism made social differentiation possible. Automobility has become part of social mobility. Having an automobile, having a driver's license, and being able to drive is part of one's social status. Informants who talked about it in this way considered it a kind of opportunity for their social mobility.

On the other side of the symbolic axis, the car is understood as a limit, restriction, and obstacle. Informants who were less optimistic about automobility spoke about how they do not like to drive, how they do not need to drive, and how they view driving as something that limits other activities. These informants emphasized that driving requires their full attention, and therefore, people who drive cannot simultaneously engage in other activities, such as working, reading, or watching films. They mentioned the fatigue caused by driving and the impossibility of talking to people, meeting new people, and having fun while driving. These informants saw the car as a barrier to meeting new people and sharing time together. The automobile was too small for them, too limiting in terms of the number of people, and too restrictive in terms of the activities they could do in it. For them, the car represented a necessity to drive that was limiting, tiring, and demanding of one's attention.

Table 1. Narratives linking transport-mode preference to chrononormativity using the resources axis

Possibility of shared temporalities		Possibility of individual temporality	
Resources axis			
Preference for money	Routine	Preference for time	Time flexibility
	High costs		Time savings
	Passive lifestyle		Active lifestyle
	Slow pace		Fast pace
	Purchase costs		Independence from timetables
	Fuel prices		Not having to wait at stops
	Insurance		Not missing public transport vehicles
	Parking costs		
	Motorway fees (vignettes)		

> So, in general, when I go to or from work, I really like to shut my brain off, because when I go in the morning, well, starting out is slow for me. I am still half asleep, and I don't want to think about anything. So, it suits me to just look at the landscape. And I don't allow work to enter my mind. And, of course, when someone else is doing the driving, I don't have to think about when to yield or whether someone is going to suddenly cut in front of me. (Lena, September 20, 2018)

Informants who talked about the automobile as an opportunity often associated it with their individual opportunity, an opportunity for them, their career, their life, and most often for their children or family. It was a personal, individual, competitive opportunity and, therefore, an opportunity associated with the individual and individualized time. Conversely, informants who perceived the car as a barrier emphasized the need to devote time to driving, time fully tied to a single activity that cannot be interrupted, postponed, or interspersed with some other activity. They perceived this as a constraint to sharing mobility time with other people's times (travel companions) or times for other activities (sleep time). They positively connected the coincidence of different times, the synchronization of different temporalities—what Massey called the multiplicity of durations (Table 2).

The third axis is the responsibility axis. In certain contexts, informants mentioned issues related to being responsible for a car, maintaining it, and, above all, actually driving it. Some informants related that they did not like driving, they were afraid to drive, or they refused to bear the responsibility for getting into an accident. Other responsibilities associated with driving were also mentioned by some informants as reasons for not owning a car. They include regularly checking the car's health, ensuring that driving-related documents are valid and up to date, knowing the highway code, and staying abreast of news related to driving (street cleaning, road closures, detours, traffic jams). Many informants said that these obligations caused them discomfort, and therefore, they refused to accept them. Informants who were more in tune with automobility, however, considered the necessity of conforming to external factors as being a source of discomfort. Without a car, people are forced to adjust their behavior to conform to the weather, the locations of public transport stops, departure times, other riders, the temperature in the vehicle, and so forth, whereas with a car, people can behave however they want. The inability to decide when, where from or where to, and with whom they traveled was, for many informants, so unpleasant in some situations that they would prefer not to go anywhere.

> What's changed is that now I have more worries, because I have to make sure … . The documents are valid only for a certain amount of time. Then you have to keep an eye on street cleaning in Brno and those things. And you also have to occasionally check if everything is okay—like you have to check how much oil you have, how much of the various fluids you have, and so on. You begin thinking about it because, for example, I didn't buy a new car, I bought a used one. So, because of that, I try to check it, and all so that I can be sure that nothing will happen, that I won't get stuck somewhere. Now I have a bit more responsibilities than before. Because when you don't have a car at all, you don't deal [with such things]. (Martin, May 10, 2017)

This axis does not express a preference for either public transport or the automobile but rather expresses an antipreference for the other mode of transport. On the left side of the axis, we find arguments against automobility, and on the right side we find arguments against public transport. The chrononormative implicit in arguments against automobility

Table 2. Narratives linking transport-mode preference to chrononormativity using the symbolic axis

Possibility of shared temporalities		Possibility of individual temporality	
Symbolic axis			
Car as limitation	Sharing, group travel	Car as opportunity	Having a driver's license
	Alternative means of transport		A rite of passage
	Free to focus on other things		Maintaining driving skills
	Possibility to work while traveling		Required for work
	Possibility to watch films while traveling		Increased social status
	Opportunities to meet new people		Family holiday, family automobile
	Possibility to consume alcohol		Transporting children, safety

is based on an unwillingness to invest time in "caring" for the automobile. In the arguments against public transport, it is portrayed as dangerous, uncomfortable, inaccessible, and insufficiently adaptable, a mode of transport that cannot be personalized because it is set up for the average, standardized user (seat size, temperature, lighting, etc.). At the same time, its use is also difficult and nonintuitive, and it requires certain competencies (finding a connection, buying a ticket, transferring, etc.). The chrononormative is manifested here in a certain privatization of transport space and the associated privatization of transport time, which must be adaptable to the needs of the specific transport user (Table 3).

We have shown that individual statements in favor of automobility also contain a certain conceptualization of time, without which it is relatively difficult to speak positively about automobility. Similarly, critical statements about automobility require a different understanding of time. In the first case, it is about understanding time in its purely individualized form, where it is possible to treat time, manipulate time, and plan time. There is only one time, the time of the individual, the time of the car driver. In the second case, it is about understanding time as something given, established, and shared, something that the informants must and, in fact, want to adopt. It is a multitude of different, overlapping temporalities, different durations, durations of different people, different activities, and different processes. Both can be said to be certain temporal norms that help in arguing for or against automobility. Although the chrononormative of individualized time applies in favor of automobility, the chrononormative of shared time applies in favor of public transport.

Contexts Revealing Intentional Automobility

In this section, we show four contexts (time, routing, alcohol, and everyday activity planning) in which an individual user determines their transport-mode choice and can therefore follow both chrononormatives. Similarly, just as we did not analyze mobility decisions at the individual level earlier, but focused on individual trips, here we do not focus on the attitudes of individual informants but analyze their individual statements separately.

We have intentionally not classified individual informants as proponents or opponents of automobility. Instead, we have categorized their individual statements. Therefore, attitudes toward automobility are not primarily bound to individuals but rather to contexts. Thus, in our sample, we find informants who prefer to travel by public transport in the city center and by car when traveling outside of the city. Likewise, some informants use their cars to go shopping but take public transport to commute to work. Others live routine daily lives during the work week but have an active life outside of work and thus use cars only to travel to their cottages, to visit people, or to go on holiday. In this manner, the same informants choose to drive or take public transport depending on the context.

Table 3. Narratives linking transport-mode preference to chrononormativity using the responsibility axis

Possibility of shared temporalities		Possibility of individual temporality	
Responsibility axis			
Unwillingness to accept responsibility for the car	Fear of driving, inexperience	Unwillingness to accept public transport conditions	Finding public transport connections
	Liability as driver		Travel preparations
	Responsibility for operating car		Buying tickets
	Responsibility for maintaining car		Transferring
	Inspecting car, adding fluids		Waiting for vehicles
	Validity of documents		Talking to strangers
	Street cleaning		Comfort of seats
	Changes in traffic laws		Does not depend on weather
	Detours		Ability to adjust temperature
	Spending time in traffic		Ability to choose music
	Looking for parking		Ability to choose fellow passengers

The first of these contexts is time. The issue of time appeared in statements about the frequency of public transport service and the duration of trips because traveling to nearby destinations by car does not save much time, whereas the opposite is true of travel to more distant places. The time during the day at which the informants travel also plays a role, as avoiding traffic jams and finding suitable parking is often an important motivation. For example, one informant stated that she drives to work only early in the morning because otherwise she cannot find a parking spot. Time as a context in intentional automobility is not only related to the time of day but also the week, the month, and the season. Seasons have a major influence on people's personal attitudes toward cars: In certain contexts, for instance, winter snow and ice were given as reasons not to drive, but, in other contexts, winter weather is the reason that people drive as they do not want to wait at public transport stops in the cold or travel in crowded vehicles during flu epidemics.

> Usually, I validate my ticket [for travel by public transport], or I walk in the summer. I just don't have the nerves to look for parking. Also, to me, it doesn't make any sense to drive a kilometer just to get to the center. But, otherwise, I often go to visit my parents in Slatina, which is on the other side of Brno; so [driving] speeds it up a lot, especially when I go in the evening and there are no traffic jams. Then I'm in Slatina in fifteen minutes. Going by public transport would take maybe forty-five minutes or so. (Julie, November 1, 2017)

Travel routes also play an important role in people's attitudes toward automobiles. In our interviews, routes (route planning) were often discussed in two different meanings. The first meaning concerns the main routes used by less experienced drivers, who spoke about greater security when taking a small number of well-known routes and about their efforts at avoiding other routes. The informant knows how to get to the final destination and therefore does not have to focus on directions or worry about getting lost. An important component of route planning is familiarity with traffic signs, intersections, turns, and good parking places. In these cases, the informants choose to drive a car. By contrast, some informants stated that if a destination was too far and the route unfamiliar, they would take public transport. The second meaning of route planning was related to bus lanes. Where such lanes exist, traveling by public transport can be faster than driving. For example, one informant described how during peak hours, car lanes are congested, whereas the adjacent bus lanes are free:

> When I took the trolleybus, Úvoz was totally backed up, but then they made that one lane a priority lane or an exclusive [bus lane]. I don't know if it is exclusively for public transport, but the trolleybus always gets through there and doesn't get stuck. I don't mean in the entire section but in most of it. And that was a very positive change. Then again maybe more cars are stuck there, but the trolleybus gets through. (Karolína, February 5, 2018)

Another context that led even proponents of automobility to talk about their experiences with public transport was alcohol. In their eyes, alcohol was the only imaginable context that could make car use impossible. Although Czech society is very tolerant of alcohol consumption, there is a zero-tolerance policy for driving under the influence. Therefore, informants stated that they take public transport to parties, or they drive but take public transport home. Some also spoke about taking public transport the next morning to avoid driving after consuming alcohol. Some informants mentioned different situations in which the need to drive prevented them from drinking (reasons of work, caring for a child, or an immobile parent).

> Well, in the morning, I wake up and, depending on whether I drank or didn't drink the day before, I decide whether or not I will drive. (Jan, May 4, 2017)

Routine activity planning has proved to be an essential part of intentional automobility. Flexible working hours, creative jobs, and the blurring of the boundaries between work and nonwork hours have transferred much of the responsibility for structuring time from the state or employers to the individual. In this context, some informants stated that whether or not they drive often does not depend on what their first destination is but rather on all the trips they need or want to make that day. Their decisions are based on the activities that they have planned for the day—the places they need to go and the location of their last activity. If just one of the planned activities involves alcohol, the informants will often modify their other trip plans accordingly and leave their cars at home. If one of the planned activities involves transporting cargo, however, they will generally use their car for the activities that

they have planned before and after. The decision to drive is generally not made for each trip separately but usually for an entire period of time, usually an entire workday.

> Maybe once a week I meet someone in the city, in the afternoon after work. In that case, I don't take my car because I don't want to drive to the center during the week. Parking somewhere near Vaňkovka [a shopping mall in the center] is really not appealing to me. So, when I meet someone, or I go for wine or whatever, I decide in advance that I will take public transport. I don't know. I suppose it's based on my plans. (Karolína, February 5, 2018)

Some activities cannot be planned, though. Informants often mentioned the unpredictability of their jobs; sometimes, it is difficult to know in advance what will happen and what kind of things they will have to deal with. Such unpredictability could be a reason for driving because people do not always know where exactly they will have to go that day, and they view cars as tools that can eliminate the negatives associated with such uncertainty better than public transport. Informants also frequently mentioned quitting time. When informants have to stay at work longer than usual, they often leave at a time when public transport runs less frequently, when it is dark, and when they have less time to do other things; as a result, they have to rush. In the evening, roads are less congested, and driving times are reduced. In this context, automobility is a response to the unpredictability of external factors on the informants' daily schedules. Nonetheless, some informants mentioned that they often do not plan their whole day and intentionally stay flexible—they have a myriad of things they can do in a day. In these situations, the car is viewed as a tool that enables temporal and spatial flexibility, that is, a tool that allows users to adjust their schedule over the course of the day. Shopping was often mentioned in this context. Even if the informants do not know in the morning whether they will go shopping, they still drive so they can decide later. Some informants also spoke about leisure activities in the same context. As Lena described, driving to work gives her the option to go jogging afterward. She does not have any good running routes near her workplace, she does not like riding public transport after sweating, and, when she gets home, it is already late and dark. Accordingly, she has found a creative solution to her predicament: She parks her car by a bike path near her office. After work, she takes public transport to a stop seven kilometers away, located on the same path, and then runs back to her car.

> When my car is on Vojtova Street, I simply make a plan that after work I will go running. So, after work, I get on public transport, I go to the Svratecká stop, and, from Svratecká, I run back. Because I like that route. I could start running from work, run somewhere and then back, but … I run to my car. So, as it is getting darker earlier, and since we have a lot to do at work too, by the time I got home, I wouldn't be able to get myself out there. (Lena, September 20, 2018)

Based on these four contexts, it is possible to see that the decision to choose a transport mode arises at the last moment and can turn out either way. These situations show that in specific contexts the choice of automobile and public transport is quite comparable, substitutable, and competitive. In one instance an automobile may be chosen and, in another, public transport. The intention of each individual user at a given place and time is decisive. We discovered that our informants often find themselves in these situations within the Brno metropolitan region and that the contexts influencing their transport choices are mostly when a given situation occurs: the route that they intend to take, the plans they have made for the day, and whether or not their plans include drinking alcohol. These situations reveal the crucial role of the intentionality of the individual, which determines whether or not the automobile—intentional automobility—is chosen.

At first glance, it might seem that the essential thing that creates the conditions for the emergence of intentional automobility is the comparable quality of infrastructure for car and public transport. In other words, it could give the impression that intentional automobility can be identified wherever selected modes of transport are competitive. As we have shown in the previous section, the choice of a transport mode is also related to the choice of a certain time, or a certain chrononormative. Our analysis shows that the ability to equivalently choose between two modes of transport is not only about the choice between means of transport but also about the choice between different chrononormativities. In other words, even those informants who preferred the car and individualized and flexible time in most of their statements were willing to use public transport and synchronize with other durations in

specific contexts. It is this willingness to alternate different chrononormatives when making decisions about everyday mobility that constitutes the conditions for intentional automobility. We find these conditions in the postsocialist metropolitan region of Brno, where the socialist chrononormative of a synchronized society is still present in the postsocialist chrononormative of flexible time organization.

Conclusion

The article aims to offer a different automobility narrative, one that comes from the postsocialist space—the narrative of intentional automobility. We derive intentional automobility from people's experiences with the car and public transport in the Brno metropolitan area of the Czech Republic. We first analyzed the situational conditions of each informant separately and, subsequently, found that the difference in travel time between the car and public transport cannot be identified at the individual level, only at the level of individual trips. We then analyzed the relationship of transport-mode preference to the concept of time and, respectively, to the normative of time. Again, it appeared that the analytically interesting difference lies not between individual informants but between individual informants' statements. In the end, we moved to the specific contexts that influence whether a car or public transport is finally chosen for the journey. We identified four such contexts: time, routing, alcohol, and everyday activity planning. Based on these four contexts, we show that the line between the choice of car or public transport is very thin and that, ultimately, the intention of the informant is decisive. These four contexts establish the narrative we call intentional automobility. On the one hand, it is derived from specific mobility decisions made by our informants in the Brno metropolitan area in 2017 and 2018; on the other hand, it shows that these decisions are not completely detached from the past but reflect the tools of socialist chronobiopolitics: central planning, shift operations, company catering, company holidays, public transport, and so on.

When we use intentional automobility to confront narratives of peak car and hyperautomobility, we can move the automobility debate to the political and even geopolitical level. Peak car and hyperautomobility, as narratives developed primarily within the Western research community, implicitly assume a certain concept of time: hyperautomobility assumes that past and current trends will continue, that the importance of the car and the dependence on it will continue to grow, whereas peak car assumes a sea change in mobility behavior. Both these views of automobility share the same concept of space and time; in both, space is rather like a surface where things happen without recognition of coexisting heterogeneity, and time is linear and moves from the past to the future. Intentional automobility entails a different view of time space. Time space is not understood as a spatially universal sequence of events. Instead, it consists of individual moments, each of which is suitable for a certain thing, a certain action, or a certain decision (timing, *genius tempori*). This appropriateness of timing, however, is understood not only as the appropriateness of the present moment but as appropriateness in relation to an experience gradually sedimented over space and time—the history of the present or multiplicity of durations. Automobility is closely connected with the temporal organization of society (chrononormativity), and therefore, mobility policy should be incorporated into temporal policies.

Postsocialist society is a case in point. The transformation from a socialist society to a neoliberal society also meant a transformation from an externally synchronized society to a seemingly desynchronized flexible society (Mulíček, Osman, and Seidenglanz 2016). Thus, in this context, intentional automobility can be interpreted as a form of automobility combining the still lingering chrononormativity of socialism with the chrononormativity of neoliberal society. In other words, there is a multiplicity of different durations (Massey 2005), a longer duration of socialist chrononormativity, and a shorter duration of postsocialist chrononormativity. Hence, intentional automobility can be understood as both a consequence of a relatively equal choice between different modes of transport, also described in Western cities such as Copenhagen (Henderson 2013) and San Francisco (Henderson and Gulsrud 2019), and as a consequence of the intermingling of different chrononormativities. It is not only about the competitiveness of different modes of transport, but also about people's ability to combine the chrononormativity of synchronized public transport with the chrononormativity of flexible car use. For this reason, bicycle transport (Oldenziel et al. 2016;

Henderson and Gulsrud 2019) is not so important to intentional automobility because it is almost equally as individualized as automobile transport, and there is no conflict of time between them. Intentional automobility, on the other hand, emphasizes that the acceptance of shared time and synchronization with other people is necessary for the use of public transport with a fixed timetable.

Intentional automobility can also be understood as a geopolitical argument, that is, an argument against the widescale, noncritical application of theories formulated in the Western research community outside of this environment. By focusing on automobility in the postsocialist urban setting, this study enriches the scarce geographical and mobility and transport research on postsocialism investigated from the perspective of a decolonial conceptual framework (Stenning and Hörschelmann 2008; Plüschke-Altof 2018; Song et al. 2023). Postsocialist context serves here as a spatiotemporal arena producing different embedded and embodied knowledges (Koobak and Marling 2014) related to urban automobility. Although it is important to ask whether postsocialist Central Europe can expect the continuation of current Western trends in hyperautomobility and peak car, much more vital questions include the following: What spatiotemporal contexts inform our choice of transport mode? How often do we have a choice? When we do, how comparable are the options? These are the questions that we would like to introduce to the current academic debate via the concept of intentional automobility.

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Notes

1. We do not claim that capitalist societies are not synchronized. They are also synchronized, but it is a different type of synchronization. In the context of transportation, an example of such synchronization could be traffic congestion. In the case of socialist synchronization, it is intentional and planned synchronization, which is collective and collectively experienced within means of public transport, employee canteen, company holidays, and so on. In the case of capitalist synchronization, it is individualized, individually experienced, unplanned, and unintentional synchronization, which is not collectively experienced within the cocoon of an automobile. Whereas socialist synchronization is understood as external, determined by the state policy, the responsibility for capitalist synchronization is internalized and understood as a consequence of the flexible behavior of individuals.
2. Cycling is, in this context, also an individualized, desynchronized, and flexible mode of transport, which is not in conflict with the car in terms of temporality.
3. Post-Soviet states represent a specific spatial context where alternative urban modes of transport have been formed. One significant manifestation of the problematic institutional and economic transformation of these countries is the emergence of the *marshrutkas* phenomenon. Marshrutkas are a form of public transportation (minibus or van) similar to a shared taxi. According to Sgibnev and Vozyanov (2016), marshrutka-based transport is a major sector of the Central Asian economy.

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– MAKING AN ACCESSIBLE CITY: A Critique of Cartographic Reason through Emphasis on Corpography

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Abstract

Inspired by Gunnar Olsson, this article critiques the use of cartographic reason in the process of creating an accessible city for people with disabilities. It also borrows Gregory's ontological conceptual pair of cartography and corpography, showing the ontological transformations that occur within this pair during the practical removal of barriers to mobility in Brno, Czech Republic. The methodology employed involves semi-structured interviews with members of the city's Advisory Board for Accessibility. Our primary aim is to demonstrate how the imperative to eliminate specific barriers in the urban environment responds to the dominance of cartographic reason in planning and political decision-making. Findings indicate that this dominance often obscures the fact that what may appear as safely accessible in cartographic representations can manifest as inaccessible and hazardous corpography. However, the cartographic visualizations serve as the initial driving force behind bringing about potential improvements in corpographic accessibility. Urban space is mapped into myriad legal and political areas, which complicates accessibility. The cartography of accessibility is becoming utopian, and, through a critique of utopia, we show how a corpographic emphasis on multisensory experience can make the city more effectively accessible. We introduce the concept of a ferryman, one who facilitates navigation through urban space.

Introduction

Efforts to prevent ableism include various projects to transform obstructive urban space into accessible space. Many actors are involved in this process: public institutions, municipal governments, spatial planners, urban architects in the service of municipal governments and even inhabitants of the city themselves. There are various methodologies, guidelines and ordinances for making urban space accessible that guide actors in the process. Such texts are abstracted from particularities, specificities and concrete contexts, expressing general and often universal principles, goals and practices of what an accessible city should look like and how to achieve it. They subscribe to the notion that accessibility shall be a final product that can be designed, built and, in the end, universally achieved in the urban environment. Yet Myriam Winance (2014: 1338) cautions against the notion, claiming that 'accessibility, often considered as an objective attribute of environments or products, is in fact a relative attribute associated with the unique mobility [or other] experience of the individual'. While the former notion of accessibility underpins spatial design as well as planning and mapping conceptions of accessible space, the latter underpins understandings of accessible space as walked, used and lived. Following this contrast, we employ a conceptual distinction between cartography, which represents accessible space in mapping thought, and corpography (Gregory, 2015; 2016), which represents accessible space as experienced by corporeal human bodies. We explore how the interplay of the two notions is shaped by cartographic reason (Olsson, 2007; 2020) during the practice of making an accessible urban environment.

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The exploration takes place in the context of the Czech Republic. This is an interesting context in which there are no disability studies, disability geography or any similar academic disciplines. There is also no systematic training of officials or method of assessing the accessibility of new building projects. In this context, accessible urban space should be built in accordance with Decree No. 398/2009 Coll.,[1] which 'establishes general technical requirements for buildings and their parts to ensure their use by persons with physical, visual, hearing and mental disabilities, persons of advanced age, pregnant women, persons accompanying a child in a pram or a child under three years of age'. The decree represents some guidance, but it rather uncritically postulates assumptions of universal design (Preiser and Smith, 2010; Steinfeld and Maisel, 2012), which is put into practice by imagining universally accessible places for typified representatives of listed groups. Thus, in this specific socio-spatial context, critical debates between those who would make spaces accessible according to model situations for typified representatives of selected groups and those who would make concrete places accessible for unique persons with specific needs are absent (*cf*. Imrie, 1999; 2012a; 2012b; Winance, 2014). The Czech Republic is going through a different process of establishing accessibility policies than the one described for Western countries (Osman and Porkertová, 2023). It thus offers an environment in which accessibility theories and policies enter from the outside, are rhetorically present and politically declared, but have no support in the institutional environment. This declared (not necessarily realized) accessibility and rhetorical subscription to universal design provide a context in which it is easier to understand the role of representational cartography in the production of accessible environments.

Universal design is probably the most widely accepted list of principles for creating accessible environments (Imrie and Hall, 2001). It has been criticized due to its weak theoretical grounding (Imrie, 2012b), its uncritical use among architects, urban designers and urban planners (Imrie, 1996), its use as a marketing strategy (Hamraie, 2013), its use of the idea of the standardized user (Hamraie, 2017) and its exclusion of people with disabilities from the design process (Edwards, 2001). Along with these critical arguments, reactions in the form of abandonment of the standardized user, emphasis on individualized experience, politics of interdependence, collective access, etc., have also emerged (Hamraie, 2013). We have undertaken a critique of universal design in terms of its relationship to time. Universal design is defined by means of principles that describe a certain state, the state of an accessible environment (or products and services), but 'people's needs are never static' (Imrie and Hall, 2001: 15). Aimi Hamraie (2013) points out that time is present in universal design through the requirement of flexible use, and flexibility not only means that design can be used in different ways or by different bodies in one moment, but that design can change over time, can be adapted, transformed, reconfigured. Claire Edwards (2008: 1677) notes the meaning of time in involving people with disabilities in the design process. She points out that it is not only about creating the right space for participation but also the right time. This also implies that the time of consultation/participation with people with disabilities may not be the same as the time of the design decision. In other words, the consultation/participation of people with disabilities may be purely formal and have no meaningful connection to the final design. Ultimately, the final design may depend more on delivery plans with very tight deadlines than on participatory design with people with disabilities.

This article aims to show that, just as accessible design is influenced by institutional timescales, project timelines and delivery plans (Edwards, 2008), it is also influenced by stable representational cartography. To achieve this goal, we turn to the

1 The decree is accessible via this link: https://www.zakonyprolidi.cz/cs/2009-398. It is freely available in Czech; registration is required for the English version.

original geographical thinking of Gunnar Olsson, who is best known as the critic of cartographic reason (Olsson, 2007; 2011; 2015; 2020). In doing so, rather than drawing on all of Olsson's rich body of work, we focus on those concepts that help to show the role of cartographic reason in establishing urban accessibility policies.[2] Just as Olsson sees certain dangers in building a caring architecture, noting 'an inevitable closeness between caring and imprisoning architecture' (Olsson and Gren, 2017: 1), we see analogous dangers in building an accessible city, where the main tools of accessibility can also be barriers to accessibility. By dangers, we mean that 'by designing and constructing physical structures you are deliberately influencing the possibilities for life and behavior [in them]. Once again, this means that architecture operates at the limit between body and mind, material things and social relations' (*ibid*.: 3). The general aim is thus to 'initiate a critique of cartographical reason' (Olsson, 2007: 9) in the practice of creating an accessible city. The specific aim is to show how the dominance of cartographic reason in planning and political decision-making responds to the need to remove barriers in urban space.

Cartography and corpography

We complement Olsson's critique with Derek Gregory's (2015; 2016) conceptual distinction between cartography and corpography, which he uses in his historical-geographical research on the materiality of wars. Gregory's distinction explains the separation between the visual experience of war from the perspective of military general staffs and the much more aural, olfactory and haptic experience of war faced by soldiers at the front. Whereas he calls the visual experience of the general staffs 'cartographic' because it consists of planning and deciding on troop movements over maps, the multisensory experience of soldiers at the front is labelled 'corpographic' because it consists of physically being and moving in difficult war-torn terrain. The commander's view of the map is subject to supreme abstraction and simplifies the soldiers' experience of the terrain 'down there': 'From the air—the perspective from which the maps and models had been made—there was a disconcerting sense that the map had *preceded* the territory' (Gregory, 2015: 107). This epistemic disconnect between the general staff and the soldiers at the front has often led to conflicts over the military's passage through the landscape. In conflicts, cartographic experience has had the upper hand because it was the experience of commanders. However, the soldiers' survival at the front and mastery of military manoeuvres 'required a "re-mapping", the improvisation of a corpography rather than a cartography, in which other senses [than sight] had to be heightened' (Gregory, 2016: 9). It is not just a question of the difference in experience, it is also a question of the difference in the usefulness of different senses. For map viewers, sight is crucial, whereas for those navigating complicated terrain, it is not just sight. 'It certainly was a matter of experience, but it was also a matter of epistemology: of what counted as useful knowledge' (Gregory, 2015: 113).

Overall, it is important to stress that Gregory's conceptual distinction is concerned with the visual geometric atemporal representational kind of cartography and the multi-sensory temporal living (perhaps more-than-representational) kind of corpography. This conceptual distinction may seem very strict, yet perhaps in its very strictness it is useful as an analytical tool for our study where we want to highlight the problematic communication, penetration and transformation between the two parts of the pair. We adapt them to a new context, which reveals fresh applications. Our focus lies in the interplay between the corpography of the city—representing the physical utilization of (in)accessible urban spaces—and the cartography of the city, which encompasses the mapping and planning of these areas. These two perspectives

2 This article does not mention Olsson's favourite 'Bar de Saussure' nor his effort to answer the question, 'What does it mean to be human?' For a summary of these important issues, see Doel (2012).

on accessibility are inherently intertwined, although they can never fully coincide or merge. The creation of an accessible city typically begins with a cartographic vision executed by architects, urban planners, politicians or officials through maps, plans or drawings. The objective is to be able to depict cartographically a kind of utopian urban space meant to be accessible in the future, in which barriers for specified groups (*cf*. Imrie, 2012b; Winance, 2014) no longer exist. According to the abovementioned decree (No. 398/2009), this is a city whose 'sidewalks, public transportation platforms, at-grade crossings, sidewalks in orchards and parks, and other walkable surfaces shall allow for the independent, safe, easy, and smooth movement of persons with reduced mobility or orientation and their passing by other pedestrians'.

The perspective of corpography is similar to the various haptic or multisensory geographies and ethnographies of the city that strive to emphasize other senses besides the sense of sight when living and walking in it (for an overview, see Paterson, 2009; Howes, 2019). This field of study has recently begun to develop even for post-socialist cities, as shown, for example, by Kietlińska (2022) in the case of a multisensory ethnography of Warsaw. However, our interest here is not to provide a multisensory ethnography or geography of a city space, but rather to examine the problem of how the more-than-visual can contrast and simultaneously intertwine with the visual when a city space, meant to be experienced as multisensory, is transformed using tools that primarily rely on visuality. Therefore, it is crucial for our analysis to have the conceptual pair that expresses this tension. We want to ask questions: How does the relationship between accessibility cartography and corpography work, being one of process and transformation? How does it translate into shaping accessibility in a city? We will try to answer these questions through analytical work that draws on Olsson's thinking (e.g. Olsson, 2007; 2017; 2020), Olsson being a geographer who has always been interested in that difficult-to-grasp, fluctuating 'in-between' of different epistemologies and ontologies, in the relationship between 'thought' and 'action'. His perspective focuses on that 'excluded middle' between disparate positions, necessary for conceiving 'thought-and-action' as a process. In our case, it is necessary to grasp the 'thought-and-action' that operates between cartography and corpography in efforts to create an accessible city.

Olsson's position as a critic of cartographic reason can, at first glance, be compared to the older tradition of critical cartography, along with its key figures such as Harley, Wood and Pickles—namely, the critique of the map as an ideological construction, inscription or proposition, that is, a representation generally filled with power relations (for an overview see Kitchin *et al*., 2009; Crampton, 2010). After all, Olsson's critique is a critique of stable representational maps and stabilizing cartographic thinking. However, we believe that his emphasis on the transformation of ontologies (such as the transformation of the ontology of cartography into the ontology of the lived world and practical action, expressed by corpography in this article) brings him closer to the tradition of post-representational cartography. This tradition is more interested in the ontogenesis of maps, contingent, relational and contextual processes of mapping, as well as the affects and effects that mappings bring forth (Kitchin *et al*., 2009; 2013). Olsson's approach to the critique of cartographic reason lies between the two positions of post-representational cartography as defined by Tania Rossetto (2015: 158): 'One thing is saying that maps perform in the world as ideological agents and practices of inscriptions; the other is saying that maps are brought into being through practices and are always remade every time they are engaged with'.

Olsson is not confined to the area of map studies and map theory, but rather in a way looks for an escape into the lived world that is without maps and mapping (i.e. corpography). Besides particular maps, he is interested in the map imagination itself, which does not necessarily have to be associated with any specific maps or mapping processes. He is interested in the 'excluded middle', which, at the abstract level of imagination, is made up of transformations and reciprocal flows between the ontological

world of mapping and the ontological world without mapping—despite knowing that today, in practical life, a world without mapping cannot exist. In doing so he does not attempt to undermine the importance of various types of experimental mapping beyond geometric topography (e.g. Aitken, 2015; Picon and Ratti, 2023), but rather to highlight the imaginative power inside our 'thought-and-action'—all the power that traditional, representational and atemporal cartographic practices have with their firm and stabilizing fix-points on geometric canvases, which is anchored into our social taken-for-granted through the use of place-names, pointers or scales. This does not mean that the lived world outside of maps does not transform mapping practices, but in our research data on making an accessible city in a post-socialist space, this process does not seem to be happening.

Gunnar Olsson: the power of ontological transformations

Gunnar Olsson studied how abstract cartographies within political thinking and decision-making shape the ideal spatial future. However, this ideal spatial future cannot usually emerge because to translate abstract cartographies into the lived world involves a process of ontological transformation. This transformation always contains the influence of power. Olsson therefore focuses on 'the power-filled traffic of ontological transformations between theory and practice, description and prescription, thought and action' (Gren, 2012: 16). In his own words, 'to be possessed by POWER is in that context to know the magical art of ontological transformation so well that I am believed when I perform it' (Olsson, 2002: 262, capitals in original). Ontological transformation in our context can have the practical effect of transforming a particular barrier-free cartography into a particular accessible corpography. However, whether that 'barrier-freeness' will remain the same in both ontologies is a big question, mainly because these ontologies are never identifiable. Power in this context means being able to make the dissonance invisible, or rather to pre-empt its visibility.

Olsson notes that, while the difference between spatial-analytic language and the language of practical action is insurmountable, these languages attempt to come into alignment, most often in the practices of spatial planning. Olsson criticizes such attempts as they lead, in certain contexts, to practices of 'social engineering', by which he means attempts to transform people's ever-changing life according to authoritative spatial structures. Power, he argues, hides between categories, whether they are categories of language, ontology or other things. He views spatial planning as a tragedy: beautiful at the beginning, terrible at the end and 'no one to blame in between' (Olsson, 2017: 81). He is therefore concerned with the potential consequences of using the analytical language of representational cartographic abstractions to alter the lived world. 'It is more difficult to understand the world than to change it, for the reality of being has a richness that no abstraction can harness, a living life that neither stories nor pictures manage to name' (Olsson, 2020: 103). He therefore warns, 'If we dare not to admit that our analytical languages have these characteristics, then we run the risk of imposing on reality a strictness that it neither has nor ought to have' (Olsson, 2017: 79).

Our aim is not to argue that 'social engineering' is involved in the practical creation of the accessible in the same way that Olsson (2002; 2012b; 2017) criticizes the regional planning of Swedish social democracy or the Nazi Third Reich. However, we note that similar ontological transformations occur between the positions of cartography and corpography in the accessible city and that these ontological transformations are strongly shaped by the processes within which power resides. Like Olsson, we are interested in that 'excluded middle' in which the ontological transformation happens, and which is excluded because it is paradoxical: the languages of cartography and corpography can never be identical, and accessibility means something different in each of them. Yet it is through the communication of these two languages that the making of an accessible city becomes possible. Nevertheless, it is the cartography of the

ideally accessible city that has more power in the process, even though experiencing the city in a barrier-free way is primarily a corpographic phenomenon: no one simply walks on maps, whereas one does walk through the city. Drawing on Olsson's critical geographical thinking, our analysis begins by 'mapping the middle' (Abrahamsson, 2018) of the ontological transformation between cartography and corpography. It then turns to other elements that Gunnar Olsson considers crucial in critiquing cartographic reason, namely the role of visuality in mapping and the role of utopian thinking in reshaping urban space.

Ontological transformations as the shift from safety to danger

The lack of institutionalized state policy on accessibility in the Czech Republic creates pressure on cities, which establish advisory boards to improve the accessibility of urban spaces (Osman and Porkertová, 2023). Our analysis is founded on participant observation of the Brno City Advisory Board for Accessibility (the Board) by one of the authors of the article (Board member) and on semi-structured interviews with all 24 members of the Board, which was formed in 2017 in response to the state's failure to address the issue of accessibility in Brno. As there are no institutionalized disability or accessibility studies in the Czech Republic, it was quite difficult to find and recruit Board members, especially as this is unpaid work. Its members were selected from three groups: (1) officials of various municipal departments in Brno (transport, investment, education, housing, health, social, etc.) and representatives of municipal companies (public transport, road management, city network management, etc.); (2) representatives of the non-profit sector working with different target groups (the blind, deaf, mobility impaired, etc.), people with disabilities themselves among them; and (3) academics from various fields (civil engineering, architecture, geography, special education, etc.). The primary intention was to assemble a heterogeneous Board, so that different expertise, experiences, professions and disciplines were represented, including people with different disabilities. Interviews were conducted in 2018 to discover what they considered the main obstacles to creating accessible space in Brno. In discussing a pedestrian crossing, Jan, a member of the Board, offered an apt example of the clash between cartography and corpography:

> Visibility is not fully respected [at a pedestrian crossing] because there is no dedicated sidewalk area. So, people park right up to the crossing even though there are [horizontal] zebra markings. The traffic marking is based on the assumption that a person is already standing on a road, even if in a place shadowed by traffic, and that cars are not supposed to go there, and the person is safe. But they're not, because, in reality, cars are turning right around the corner. So they're cutting through the place that the designer says should be safe (Jan, civil engineer, municipal official, interviewed October 2018).[3]

A line drawn in the cartographic ontology (project documentation) does not equal a line drawn in the corpographic ontology (on a specific road). Whereas we look at it from the same perspective in cartography, we see it from different perspectives in corpography (pedestrian versus driver). In cartography, a line is drawn in the project documentation, but, in corpography, it slowly disappears under car wheels, pedestrian soles, rain, frost, sun and cleaning trucks. One is permanent and unchanging, the other fades and must be redrawn. And, just as the line itself is transformed, so too is its meaning as a traffic marking. In the ontology of cartography, this traffic solution is possible, legally correct and safe. In the ontology of corpography, it becomes an inconvenient, even dangerous

3 The following are listed in parentheses: pseudonym, field of education or training, occupation at the time of the interview, date of interview.

solution. Jan speaks of the cartographic ontology of the designer who moves in a space of laws, norms and regulations in which there is a concept of a traffic shadow. In addition, he talks about a corpographic ontology, of the actual behavioural use of space and non-compliance with markings. Thus, along with the transformation of the line from cartography to corpography, there is a significant transformation of safety. The excluded middle contains the behaviour of drivers who use the space in a different way than the designer/cartography intended.

Marie below talks about the reconstruction of a tram island in the middle of a road (with tram rails on one side and a road for cars on the other) raised above the road level and about 170 cm wide.

> Marie: The Transport Company wants to pave the islands on [the street] as they are, one meter seventy [wide]. So, I said, that's just not possible; you have to widen them and make a regular crossing.
> Interviewer: And they would just pave them? That's it?
> Marie: Just the islands, one meter seventy, yeah. That's why I wrote to them that it's dangerous. You put a ramp out there, and a wheelchair user falls off (Marie, civil engineer, accessibility consultant, interviewed June 2018).

From the point of view of people without a mobility handicap and no need to use an extension platform, the island is usable, accessible and safe. Inside the excluded middle is the extension platform, or rather its incompatibility with the island. The moment a platform is extended, most wheelchairs no longer fit within the remaining width of the island. A wheelchair exiting the platform might drive off the island into the road amidst passing cars or turn while on the platform and try to slide off diagonally from it onto the island. Neither option is safe. The excluded middle is thus between cartography, which designed islands when trams with pull-out platforms did not yet exist, and corpography, in which a wheelchair user is forced to use such a platform to exit. From the wheelchair user's point of view, this combination is very dangerous.

The power of cartographic reason

Studying the excluded middle makes the ontological transformations between cartography and corpography visible. Olsson criticizes the power that systematically renders ontological transformations invisible. It obscures not only the transformation of cartography into corpography but also of security into danger. This power would not be as effective in the examples cited above were it not for the dominance of cartographic reason in Western modernity. Olsson (2007: 54) argues that 'cartographic reason serves as the handmaid of power'. Indeed, cartographic reason stands not only at the foundation of cartographic thought and imagination but also at the foundation of all Western 'thought-and-action' and, thus, where the representational, geometric and atemporal cartography of the safe city is transformed into that of the unsafe city. In critiquing cartographic reason, Olsson is interested in 'how the visible content of human thought was cast in an invisible geometric form' (Gren, 2012: 25). He argues that people need maps to communicate because 'if I want to be believed, it is not enough to tell a trustworthy story, I must also know how to paint a picture that goes with it' (Olsson, 2017: 71). It is a paradox, then, that corporeality, which in itself would only be lived through and is therefore unrepresentable, must somehow be represented and communicated. Indeed, even in the case of Gregory's wartime examples, corporeality had to be somehow recorded in words in order to be known at all, which nevertheless made the reality necessarily different from corpographic experience. 'The conclusion is straightforward: although object and word are always related, they are never identical. [Therefore] the semiotic animal [i.e. the human being] is thoroughly paradoxical' (Olsson, 2007: 94). 'To be human is to live with paradoxes. It is in, and through, these

paradoxes, that we become human' (Abrahamsson, 2018: 119). Paradoxes are dismissed and marginalized in Western thought, yet they actually occur in that excluded middle and are needed for the world to function procedurally, not statically. They are needed for novelty to emerge in the world.

Olsson works with irreconcilable epistemological and ontological contradictions 'not in order to effect a fusion, selection, sublation or reconciliation, but in order to wrestle with paradoxes' (Doel, 2003: 150). Paradoxes force contradictions to move, and thus it is possible, for example, to analyse how cartography transforms into corpography and vice versa. Here the paradox is that accessibility on the map becomes (or does not become) lived accessibility when passing through the city, even though both mean something different. The paradox is that these opposing positions attract and repel at the same time. This prevents the staticity that a world without paradoxes would allow. But the world is full of paradoxes and constantly in motion. As a result, no position can remain completely static so that it can encapsulate itself. 'In short, every position conflicts with itself and is estranged from itself from the off. Every position is given in motion and set in motion' (Doel, 2008: 2635).

Paradoxes tend to be suppressed not so much because they are unpopular but because 'they have to be suppressed and regulated in order for certainty to take form' (Abrahamsson, 2018: 50). Suppressing paradoxes means embedding certain 'fix-points'. This is precisely the role that cartographic reason has: 'So it is by selecting and naming his fix-points that the cartographic reasoner knows not only where he is but from whence he came and to where he is heading' (Olsson, 2015: 38). After selecting, determining, naming and placing fix-points, a scale must be chosen that determines which of the fix-points will lead where. This is plotted either on a physical or on an imaginary canvas. The latter is necessary because without a canvas on which to anchor everything, there can be no anchoring as such. Therefore, without the canvas, there can be no physical map, and there can be no social taken-for-granted. It follows that 'the map is the most powerful of all power-filled rhetorical tools' (Olsson, 2007: 364). 'To ask what a map is and what it means "to map" is also to ask about the epistemological and ontological structure of the world in which we live and map' (Pickles, 2004: 76). Cartographic reason then determines the production of physical maps in cartography, our mental and intellectual maps and our ability to have them communicate with each other, i.e., our social taken-for-granted. What is important here is that this social taken-for-granted also has a clear representational cartographic vision of what an accessible city should look like—through ordinances, norms and regulations.

In the Czech Republic, an accessible city is primarily defined by Act No. 183/2006 Coll. on Spatial Planning and Building Rules (the 'Building Act') and its Decree No. 398/2009 Coll. on general technical requirements to secure the barrier-free usage of buildings. Several professional publications further specify this decree in methodologies or model solutions (Poláčková 2011; Zdařilová 2011). These documents define the parameters of what is considered accessible and draw model solutions according to which an accessible city should be cartographically created. These documents shape designers' and planners' spatial imagination, which, in turn, always determines and the way in which a city infrastructure can be built (Picon, 2018). They aim to standardize and unify accessibility solutions, representing the social compact on accessible space: the social taken-for-granted. The paradox here lies in the (in)stability of both geometry and this taken-for-granted. The aforementioned quotation from the interview with Maria shows that, when a norm for tram island maintenance meets a norm for designing pull-out platforms, it results in the meeting of different instances of social presupposition. It shows an evolution over time: a process or a change. Laws themselves change, are amended and updated; new legislation replaces older legislation, with decrees being implemented as technical standards change; and what we presuppose and consider to be fixed is at the same time changing and living.

> I know, for example, that [this housing estate] has it. There are sidewalks with such a gradient that I would say it's not permitted, but it has been, it's been implemented. The construction takes a while. It's been going on for a number of years. So, you can see the evolution of those regulations there. Also, those regulations are evolving. So, when they started to build [the housing estate], for example, they didn't contrast the colour of signal strips against the surrounding pavement. So, everything built at the beginning is just grey. And gradually, as the regulations changed, they modified those guiding safety features. And today, when you go there, you wonder why it's like that. Even those regulations have evolved, and construction must obey them … And then it's different compared to the present; like, what existed before is now wrong (Viktorie, civil engineer, city company, interviewed October 2018).

Certain constructions (e.g. housing estates) take so long to complete that the standards and regulations for accessible urban space change during the construction process. Viktorie illustrates this in her explanation of how signal strips for the visually impaired were created, which were initially built to a standard that did not require them to be colour-contrasted. But before the completion of the estate, a standard was adopted that mandated the contrast. For individuals with residual vision, this disparity in corpography poses challenges, as they can recognize contrasting strips but struggle with non-contrasting ones. Legislative and technical presuppositions and fix-points are constantly changing and are therefore not as stable as desired from a cartographic reasoning perspective. Olsson (2020: 105) therefore believes that we need 'a mode of understanding on the verge or realizing that a canvas of the world is not a smooth flatness but a wrinkled manifold, that the pointer is not straight but crooked, that the scale is not a suspended line between *alpha* and *omega* but a Möbius band of chiastic reversals'.

Transformations are not only caused by changes in legislation, regulations or standards, the need for cartographic remapping is also triggered by corporeal life situations themselves. Corpography re-emerges chiefly between the infinite variety of life situations and the typified model solutions to these situations—a space where planners try to apply a certain principle to the accessibility of a particular place. By the very nature of the difference between the variability of model situations and life situations, it happens that a model example cannot be applied or is applied inappropriately. An example is the repair of a central tram boarding island (at a busy junction in front of the main train station, where trams stop on both sides of the island), a unique case according to available information in the Czech Republic.

> Unfortunately, the construction company did not have the documentation for the construction, so they implemented it according to the methodology for the accessibility decree, and, unfortunately, the methodology does not include a solution for a central island with access from both sides. So, they did it probably the best way they thought it could be done, as laid down for side islands [exit from one side only], but the solution was not well chosen (Emily, trained as a teacher, municipal official, interviewed May 2018).

Under the formula for repair, an old surface is replaced with a new one (material for material), but the geometry of the area under consideration is not changed. In this case, however, the asphalt was replaced with pavement, and it was desirable to add an artificial guiding line running lengthwise from one end of the island to the other. However, as no documentation with the new geometry was prepared for the repair, the contracting authority was referred to model solutions—but none was found. The contractor therefore used the closest model, a tram island with boarding from one

FIGURE 1 The result of the application of the closest model solution (*source*: Robert Osman, August 2017)

side. A paradox occurred when the model did not work, and the fix-point in the form of the decree could not make the space accessible. This method of translating correct cartography into the corpographic reality failed. A two-sided island was repaved with tactile interlocking pavement according to a pattern for one-sided islands. As a result, the artificial guiding line in its centre passed through or under all the equipment—benches, shelters, rubbish bins, maps, information signs—thus, it became unusable (see Figure 1). Cartography was transformed into dysfunctional corpography. Subsequently, a wave of discontent arose and, together with visually impaired people, a more accessible solution was devised for the artificial guiding lines. This solution was subsequently redrawn on a map (i.e. a transformation of corpography into cartography) and, finally, the surface was repaved in accordance with the documentation (i.e. transformation of cartography into corpography). This example shows the power of cartographic reason. Even without design documentation, a suitable model situation, or any meaningful solution being to hand, the initial solution was still implemented because it was the closest thing offered by the decree written on the canvas of legality. The unquestionable cartographic reason of decrees shows how powerful they are in shaping an accessible city.

The inflexibility of cartographic reason

The basal tendency of cartographic reason is to ontologically transform the complexity of the ongoing lived world into fix-points, between which static relations are drawn on a canvas of the social taken-for-granted. Olsson's friend and another critic of cartographic reason, Franco Farinelli (2001: 242), says, 'It is the map, the macroscopic device par excellence, that transforms a state of uncertainty into certainty, that renders that which is open and undefined as determinate and finite'. Turning the world into a

map, that is, mapping, has become central to social life in Western modernity: 'It is the very structure of cartographic reason that—far from inscribing a single determinate line—draws and redraws our world, erases and inscribes again' (Pickles, 2004: 23). 'The fixed points that at first appeared fixed are, when more closely examined, only fixating' (Abrahamsson, 2018: 37). Olsson argues that every map is a palimpsest: it transcribes something originally lived (such as a city) into something inanimate (a representation of the city), and then, in reverse, that which is represented inanimately is taken up as the reality of the lived—except it is one that does not actually exist since it is already disconnected from the original: 'Simsalabim and the vistas from elsewhere lie open in front of us, the image of a reality never seen before, a no-where miraculously changed into a now-here, a shade of blue turned into an ocean, a line into a road, a dot into a city' (Olsson, 2011: 40).

Traditional representational maps fix points on a surface, drawing straight lines between them, but this is in a problematic relationship with the lived world. Farinelli (2018: 25) reminds us that 'straight lines do not exist in nature … However, straight lines do exist on the face of the Earth, and they are themselves the proof that the Earth is the copy of the map'. This is perhaps a very radical statement, yet it reminds us that there can exist a kind of reduction of the non-representable living into representable depictions of it and 'such a reduction has been made possible by our absolute belief in maps' (Farinelli, 2014: 43). Therefore, 'to understand the world is … to become aware of those ordering principles by which the unknown is occupied, delineated, mapped, and staked' (Olsson, 2000: 1241). On the other hand, 'the onto-aesthetic taste of today seems to be much more curvaceous, rambling and feral' (Doel, 2020: 22), as the above case of changing legislation or the application of exemplary solutions shows. In today's volatile and changing times, things are always more complicated than maps or mappings suggest. 'The critique of cartographic reason is based, above all, on the recognition that the secret to all Western knowledge lies in projection' of the world on a flat, stable canvas' (Farinelli, 2001: 239), where flat areas delimited by borderlines exist.

Through this critical lens, we discover the problem of borderlines in the accessibility of public space. Even though public space may appear open and accessible to able bodies, there are many borderlines that are not visible at first glance—often related to institutions, authorities, administrations, methodologies and norms with a certain territorial scope that divide space into invisible areas. Their boundaries are not visible to the trained eye and are especially invisible to healthy and able-bodied people. Yet for people with some physical handicap, they are often blatantly obvious: for example, a landscaped wheelchair exit ramp from a sidewalk to a crosswalk with no corresponding ramp on the other side of the crosswalk or when a guiding line ends up in the middle of nowhere in a newly reconstructed space—solutions that are nonsensical for corpography yet based on the boundaries of cartographic drawing.

> Now, you suddenly find out that it's unsolvable because the designer tells you, 'I'm doing your house like this, and I can't do anything about the surroundings, as it belongs to the city' (Kamil, civil engineer, university employee, interviewed October 2018).

Several borderlines can be identified in Kamil's quote. First, a borderline between the territory of different owners. The designer works for a private owner and deals with his territory only. Of course, the private property will be connected via gates, doors and driveways with city-owned space, but what lies beyond that boundary is no longer addressed. Second, the situation is influenced by the boundaries of the area under consideration; for large buildings or road construction, the consent of multiple owners is usually required for a given development to be implemented. Instead of real ownership boundaries, a boundary of the 'area under consideration' is drawn on the map, typically

FIGURE 2 An example of an artificial guiding line for people with visual impairments that suddenly ends due to an invisible borderline (*source*: Robert Osman, August 2023)

a certain geometrically delimited area. What is outside the borderline of the project area is not of interest. Thus, the design lowers curbs and proposes artificial guiding lines only in the project area and not beyond its borderlines. The cartographically correct solution inserts a borderline detail with artificial guiding lines into a larger area without them (see Figure 2).

> This is just an unresolvable space. It just clashed with the fact that a reconstruction was made there, and, again, it was not finished since it was a reconstruction of the green areas taking in only 20 centimetres of the sidewalk. So, the rest of it is completely wrong, as it belongs to another department (Kamil, civil engineer, university employee, interviewed October 2018).

However, it is not only the borderlines of the plot and the map but also the city administration and the authorities concerned that come into play. In the reconstruction mentioned by Kamil, the green areas are managed by the municipal company Brno City Greens, part of the sidewalk is managed by a municipal district and the rest is managed by Brno Municipality. The borderline runs through the sidewalk, so that only one part of it was reconstructed. More complicated situations can arise. For instance, a 20-meter link between a tram island and the entrance to the Labour Office (responsible for the payment of care and disability benefits), on which an incredible seven owners, administrators and concerned authorities met (Osman and Porkertová, 2023). Pedestrians traversed a dense concentration of jurisdictional borderlines with slightly different norms and regulations, resulting in different cartographies.[4] No borderline is explicitly visible, yet it fixes what belongs to whom and what is managed by whom. This multiplication of boundaries is a problem not only in generating new barriers, but it also plays a big role in impeding the removal of existing barriers.

4 This is not an exception but a result of the fact that accessibility is not legislated for at the state level in the Czech Republic but is left to municipalities, which clash with the state administration in its realizations.

> As they say, there is no such thing as small construction. For example, designing a crosswalk, like the one at the [tram stop], it seems like a small thing. But [with] all the correspondence and negotiation considered, it's just as demanding for the designer as designing one big street for more money … But the related work, the printing and the negotiation are almost the same. And so, it does not pay designers to do just this little part. It's more profitable to do a big construction job. So, they don't want to do the little jobs (Viktorie, civil engineer, city company, interviewed October 2018).

Places with borderline concentration represent small territories highly fragmented into small areas, the design of which is not lucrative for designers. It is therefore not easy to find a designer who would be willing to design, for example, a single crossing, bus stop or, generally, any infrastructural intersection. The ability of cartographic reason to create various borderlines in multiple layers not only stabilizes the territory, it prevents its transformation and, thus, its accessibility. Making urban space accessible must thus go hand in hand with a critique of cartographic reason and its tendency to segment and fix.

The problematic dominance of sight

The flourishing imagination of borderlines also means an increase in visual skill based on a combination of modern linear perspective and geometric projection, making cartographic reason inextricably linked to the dominance of the visual in the modern Western city (Pickles, 2004; Cosgrove, 2008; Farinelli, 2018), with the aim of straddling legal and political areas and territories between borderlines (Elden, 2013). Sight is the sense that allows us to project fix-points, straight lines and right angles onto the world we see from afar. The sense of sight 'serves to save modern man from strenuous tactile relations with things, which presupposes physical, direct and immediate encounters with each of them' (Farinelli, 2018: 156). Visual representations then take on the qualities of real things by which we direct our actions. As Olsson (2012a: 235–6) puts it, 'The modern subject is part and parcel of the rhetoric of the eye and thereby of the ontological drift to thingify'. Through the gaze, the modern subject continuously geometrizes the world around him, locating himself outside this geometry and creating maps of the actual or potentially seen (*cf*. Farinelli, 2015).

Visual imagery, in conjunction with cartographic reason, has strongly influenced how cities are understood, perceived, conceptualized and eventually built. The geometry so common on maps—that is, straight lines and right angles—became a prerequisite of modern urban form. The map became embedded in the surface of the earth to form straight lines and right angles: 'Nowhere else is this map as present as in the modern city, in its linear perspective and its right-angled grid. Is urban life a topography of points?' (Abrahamsson, 2018: 20). Yes, because lines intersecting at a right angle are 'an integral part of the taken-for-granted' (Olsson, 2001: 272). Cartographic reason attempts to make lived cities into a topography of points, straight lines and right angles. But even a city in the form of a map imprinted on the earth's surface is never purely geometric and cartographic. Why? Because every city is living and ongoing. But it is precisely this conception of the city as a living assemblage of people, their lives and biographies that has largely disappeared from modern city conceptualizations, in which the city is understood and grasped primarily as inanimate buildings and streets that visual geometric representational cartography can capture (Farinelli, 2018: 144–7). In these modern conceptualizations, buildings and streets are transformed. They cease 'to have any affinity at all with humans' (Farinelli, 2015: 152); cities are beginning to 'have their *raison d'être* in how close their approximation is to the cartographic model' (Farinelli, 2016: 155).

Although nowadays there are diverse cartographic attempts and practices to subvert common stable visual geometric depictions of cities (e.g. Rossetto, 2012;

Picon and Ratti, 2023), which would accentuate the ontology of corpography in expanding accessibility, they are not widely reflected in efforts to make an accessible city in the case of a post-socialist city like Brno. In this case, visual cartographic urban conceptualizations prevail in a desire to somehow alter the city geometrically. Visual atemporal cartographies 'are thus strongly privileged as the media through which the city is known and *improved*' (Cosgrove, 2008: 181). Cartographic visualization of the city and its improvement through this visualization is 'an obsession of urban planning' (Pickles 2004: 130), the planning of an accessible city included. However, this obsession must always be confronted with how the accessible city is experienced corporeally (through senses other than sight), even if cartographic visualization is often the first impulse of improvement. Viktorie explains why the need to first see accessibility cartographically is so important yet problematic.

> Suddenly, there is a demand, maybe even from the public, that something is wrong and that we quickly find a designer who would draw it and implement it … Because we are a public contracting authority, we have to fulfil certain conditions, organize tenders, address more providers … it depends on the expected price whether we can only approach three designers or whether a tender has to be launched. These are the mechanisms of public tenders. We cannot simply say, 'Here is a project. Please, Mr. Novotny, design it for us'. We're not a private entity that can pick and choose (Viktorie, civil engineer, city company, interviewed October 2018).

Someone reports to the relevant authority that a particular barrier is causing them difficulties, expecting an adequate response within days. However, the institutional and legislative environment in the Czech Republic takes months at best (more likely years)—if the request can be mapped at all. It must be translated into a map representation. First, an accessible solution must be created cartographically for the eye, and only then can this map be transformed into corpography, that is, can an adjustment be made. The person who encounters a barrier only in the ontology of corpography is unaware of the necessity for a double transformation to and from cartography and expects a quick solution. However, single barriers are usually perfect examples of small territories with a high concentration of borderlines for which it is difficult to find a designer, let alone a quick and operational designer. The time dimension becomes significant in this context, as the necessity for a map emerges as a means of slowing down the process of creating accessible space. The map serves as a visual pause in the journey toward accessibility, portraying an idealized vision of what a particular state might resemble beyond a mere cartographic representation. By existing in the realm of utopia, the map 'anticipates' the lived reality of the city, offering a solution outside the constraints of time.

Utopian visions of barrier-free cities and why we should overcome them

The quest to create a more accessible and barrier-free city is an effort that, in principle, declaratively seeks to improve urban living space—at least for a certain group of people. Utopian thinking has always played a key role in urban planning; the two have a long tradition of interconnections. According to Harvey (2000: 156), 'Utopias were usually given a distinctively urban form and most of what passes for urban and city planning in the broadest sense has been infected (some would prefer "inspired") by utopian modes of thought'. Utopias have depended on a belief in map-based spatial representation since their very conception (Farinelli, 2014: 41–4). It is not an uncommon vision that to create a truly ideal accessible city means having the right spatial plan, the right barrier-free cartography.

Utopia means both 'good place' and 'nowhere' at the same time. Through awareness of this paradox, Olsson (2020: 53) observes that necessarily 'the only way

to reach the utopian No-where is to approach it *as if it were* Some-where'. The utopian No-where needs to have some line to the real Some-where, otherwise it could not be a paradox that is both a 'nowhere' and a 'good place' at the same time. As noted above, paradoxes do not make sense in a stable world, but they do have an effect in a changing and ongoing world, a world where there is some *communication* going on between irreconcilable opposites. 'Utopia does not, then, belong to the imaginary as opposed to the real. Its very name announces a Möbius spiralling that undermines its consignment to one side of an opposition' (Clarke, 2011: 955). Utopias as paradoxes thus exist primarily to mirror their 'nowhere' to 'somewhere' (on the map), and this 'somewhere' can be constantly compared to this mirror in order to establish that it is not as perfect as the utopia. Just as maps of urban space are mirrors often anticipating reality, utopias are perfect mirrors of imperfect reality but have the power to anticipate reality and shape it in their own image (Clarke, 2011).

The utopian barrier-free city is an ideal spatial formation that is representational and cartographic but tries to leave the mirror in which it is trapped. Whenever it reaches corporeal reality, however, it becomes something else. For many urban planners, the accessible city is a map that represents cities without visible barriers. For people with physical disabilities, however, an accessible city means a corporeal space that they can use without being constantly reminded of their physical otherness. Nevertheless, for a more corporeally accessible city to somehow come into being, the cartography of the utopian barrier-free city is needed. Nothing can be done if the utopian 'nowhere' does not interact with the mundane, everyday 'somewhere', but each 'somewhere' is a different world from the utopian 'nowhere'. In the creation of the barrier-free city, the ontological transformation of cartography into corpography is *absolutely crucial and necessary*, but corpography must never be replaced by cartography, even though cartographic reason is constantly moving towards this replacement within urban space. Although we need the cartography of the utopian city for the process of change, it must not be the only fundamental determining element in the minds of urban planners and other cartographic reasoners. 'One must always be ready and willing to step aside as things come to pass' (Doel, 2004: 456). For if this is not done, urban life could approach what Gunnar Olsson describes warningly as 'social engineering'.

The utopian, barrier-free city deliberately overlooks and makes invisible the fact that there are conflicting demands for user-friendly solutions among different groups of people, that historically defined city centres do not have room to accommodate all newly defined demands, and, above all, whether assuming the accessibility of everything for everyone is desirable and expedient. The utopia of an accessible city is unable to prioritize between places, resolve conflicts between groups or set a timetable for incremental improvements; it is only able to establish and universalize principles for the entire city and all its people. Viktorie shows how this utopian notion translates into the everyday thinking of city planners.

> For example, we, the so-called healthy ones, think that we simply have to make access for the blind everywhere. Yet, in some places, despite all measures, it is so dangerous that it is better not to guide them in but rather apply warning signs and only allow the visually impaired to cross where it is really safe. And, in this case, the designer was trying, at all costs, to equip every building according to the law, according to the standard, with all these features … A designer is obliged by law to apply it like that everywhere, but it cannot be simply applied everywhere. And now we don't know who the arbiter is that says, 'You don't have to do it here', because it's really dangerous despite all these measures. There's no law that addresses this (Viktorie, civil engineer, city company, interviewed October 2018).

The utopian vision of a barrier-free city manifests in the universal application of pedestrian crossing modifications for the visually impaired, regardless of desirability, practicality or safety. Irrespective of whether visually impaired individuals actually use or intend to use a specific crosswalk, or if there are viable alternative routes, the current approach demands modifications in all cases. Viktorie proposes a more practical approach, suggesting that modifications should be limited to selected crossings to ensure safety for the visually impaired. However, this alternative seems implausible due to the complicity of legislation and standards in upholding the utopian ideal of a barrier-free city. There is no external authority to question this ideal and determine which crossings should be made accessible and which should not. Cartographic reason, shaped by social norms and regulations, constructs the utopian concept of an accessible city. This utopia falls short, however, of fully translating into a comprehensive corpography of accessibility. Moreover, it can further complicate the tactical and situational implementation of corpographic accessibility.

The question therefore arises: How can urban accessibility be framed in accordance with the Olssonian critique of cartographic reason? What 'thought-and-action' can be developed to prioritize accessibility beyond the predominant reliance on legislation, standards and one-size-fits-all solutions? Currently, in the Czech context, accessibility is predominantly framed as a material issue, with barriers seen solely as physical obstacles that require material adaptations, such as construction. However, a paradigm shift is needed to conceive accessibility in terms of immaterial adaptations within the lived environment rather than solely focusing on physical modifications. For instance, exploring organizational adjustments within institutions could serve as an exemplar of this alternative perspective on corporeal accessibility. By reframing the concept of accessibility, we can move beyond the construction-centric notion of a barrier-free city and explore solutions that transform the intangible aspects of our surroundings.

> The fact is that you can find other ways than just the prescribed ones. Like, a lot of organizational adjustments can replace expensive building modifications. I can see that in our office, for example, rather than equipping an entire four-story office with guiding lines, it's easier to make an organizational adjustment where the receptionist briefs the person, calls a particular officer who picks the person up at reception, escorts them around the building, deals with them in the office and escorts them back. So, I don't think it's always necessary to do exactly what the decree prescribes, those expensive adjustments … when the institution can solve it with a simple organizational change. And I guess that's the logic behind it. Like, make it easier for those people to sort of figure out the issue but be economical about it (Emily, trained as a teacher, municipal official, interviewed May 2018).

Emily directly sets herself apart from valid legislation, decrees, guiding lines, building modifications and cartographic accessibility. She proposes purely corporeal accessibility—accessibility realized through communication, organization and coordination. As Barnett and Bridge (2016: 1188) note, 'thinking problematically about the city requires inquiry into just what sorts of difficulties and possible actions are being named through deployment' of familiar terms and concepts, such as 'organization adjustment' in this case. Cartographic reason is inscribed into the very organization of a (municipal) office: there are a number of departments within, each of which is presided over by an official with a different agenda. This division of responsibilities among individual officials and departments is not dissimilar to the division of responsibilities over the pedestrian crossing described above. Any issue to be dealt with requires a series of transitions and borderline crossing. However, Emily does not propose modifications

via construction, she wants to establish a new institution, a *ferryman*, that is, one or more persons who will guide people with disabilities through the cartographically produced and constantly multiplying borderlines. Such a ferryman might be a receptionist asking people about their needs and calling a particular staff member. This can be an important attempt at 'denaturalizing taken-for-granted aspects of the present' and 'prefiguring alternatives' for accessible movement in the city (Thorpe, 2023: 189). Any officer can serve as the ferryman, picking up people at the reception, taking them through the borderlines and accompanying them back. This also marks a departure from the modern, exclusive city conception as a structure of buildings and streets and a return to a conception of the city primarily as a living assemblage of people, their lives and biographies (Farinelli, 2018: 144–7).

Conclusion

This text critically examines the role of cartographic reason in the realm of urban accessibility, aiming to uncover the ontological shifts between cartography and corpography within the context of creating accessible urban spaces. In the absence of an established methodological framework to guide and coordinate the physical accessibility of cities in the Czech Republic, it becomes intriguing to analyse how these ontological transformations are employed in shaping the accessible city. What is workable and accessible in a cartographic conception may be inaccessible and even dangerous once transformed into a corpographic experience. Thus, this article demonstrates—primarily through a critique of cartographic reason—how cartography and corpography are not in the same position of power in making the city accessible and how cartographic accessibility is often promoted at the expense of corpographic considerations.

The representational cartographic notion of accessibility is deeply intertwined with the realm of plans, map drawings and design documents produced by cartographic reasoners such as urban planners, architects and city space designers. Simultaneously, this concept is also deeply rooted in the social fabric through legislation, standards and decrees, inscribed on the canvas of the social taken-for-granted. Consequently, in the ontological transition from cartography to corpography, cartography holds a position of greater power in shaping the form of an accessible city. With its fixed reference points, cartography exerts a more enduring and stable influence compared to the transient experiences of corpography. However, this article also reveals the dynamic aspect of the ontological transformation, highlighting how cartographic fix-points are susceptible to change and adaptation in the lived world: rather than 'fixed', they are only 'performing the fix'. The passage of time, the forces of change and corpographic perspectives on lived and multisensory accessibility can disrupt the apparent timeless stability of cartographic fix-points. The utopian ideal of maps and cartographic drawings, while serving as a catalyst for improving urban spaces, paradoxically clashes with the very notion of progress and movement when traced into the corpographic lived world.

This paradox is then the focus of the specific and empirical aim of this article, which asks how the need to remove concrete barriers in the urban environment responds to the dominance of cartographic reason in planning and political decision-making. Cartographic reason's dominance arises from the necessity to capture every change cartographically. While this is crucial for achieving accessibility, it also poses a significant hurdle to creating an accessible environment. Cartographically processing every change considerably lengthens the process of enhancing urban accessibility. The requirement to clearly demarcate accessible areas through cartography introduces boundaries that can manifest as new barriers. These barriers arise in the cartographic processing phase, where designers may hesitate to tackle areas with multiple boundaries, as well as in the corpographic materialization phase, where drawings, ownership and territorially managed borderlines translate into divisions of modified/unmodified, reconstructed/unreconstructed and accessible/inaccessible environments. Focusing

primarily on cartographically mappable objects neglects alternative solutions. Atemporal representational cartography thus fosters division, delimitation and segmentation in shaping accessibility. In turn, this generates spatial areas characterized by fixedness, stability and immutability and, paradoxically, hinders change, even in terms of urban accessibility.

In our view, universal design is closer to the atemporal kind of cartography than to living and becoming corpography and therefore we try to offer an alternative view of accessibility with the ferryman concept. While universal design seeks permanent solutions that can be both economically costly and time-consuming, the ferryman can offer solutions that are relatively quick and inexpensive. At first glance, the ferryman may appear not to be a very conceptual solution that may even possibly prevent a systematic change. Yet our arguments for it are based on the state of accessibility issues in the post-socialist Czech Republic, where accessibility is declared by central authorities, but no adequate institutional environment is created to enforce it (Osman and Porkertová, 2023). In addition, the ferryman concept may be a response to the situation that, in the Czech Republic, public administration offices are often housed in historic buildings with heritage protection, which are not easy to retrofit into a more accessible form. In the context of this article, however, our main argument is primarily the excluded middle fluctuating between the atemporal kind of cartography and the (spatio)temporal nature of becoming in corpography. The ferryman concept opens the accessibility of time, offering a possibility for theorizing temporal accessibility.

Changing the organizational structure or communication flows may only be a temporary solution to help accessibility until a more systematic and permanent solution can be achieved. On the other hand, universal design is derived primarily from the physical capabilities of our bodies and thus presents a quite useful tool for people with mobility disabilities, partly also with sensory disabilities, but is less applicable for people with psychological or mental disabilities (Hamraie, 2017). In this context, the move away from disadvantage to our bodies to disadvantage to our bodyminds (Price, 2015) can be traced as being associated with an emphasis on temporal barriers and temporal disadvantage (crip time, crip spacetime) (Price, 2024; Osman and Kotýnková Krotká, 2025). This creates requirements for temporal accessibility that cannot be addressed by a universal solution. If someone needs a slower pace and someone else needs a faster pace, a medium pace is not a solution. Flexible ferryman's care that allows diverse time accessibilities may be the kind of solution.

The ontology of corpography is fast and lively, so that it constantly encounters both the borderlines dividing specific areas and attempts at shifting their stability. By contrast, cartography seems to accumulate images with drawn borderlines, but the functionality behind these depictions remains obscured. Lived accessibility exists in

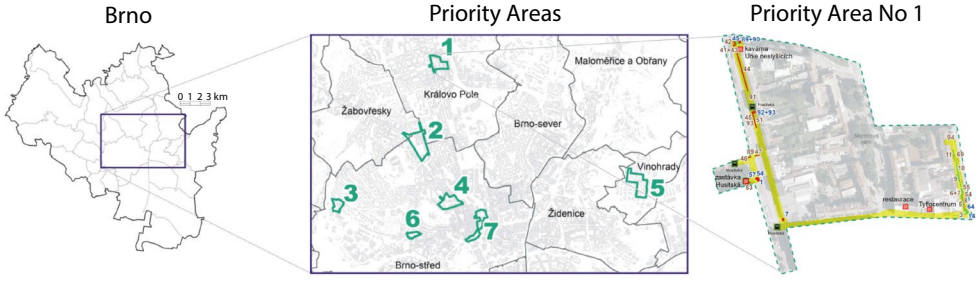

FIGURE 3 A map of existing barriers on routes preferred by people with disabilities in one of seven priority areas in Brno; numbers in the priority area are identified barriers, points with names are important places for people with disabilities (*source*: Krejčí *et al*., 2021)

the space between these images, beyond the reach of cartography. Interviews with members of the Board revealed a response to the dominance of cartographic reason through an alternative approach to enhancing accessibility. This approach focuses on linking, integrating and coordinating, offering organizational changes instead of solely relying on building modifications—as the ferryman concept tries to show. The Board can coordinate owners and managers across segments, alleviating the burden on people with disabilities to identify the parties responsible for barriers. Consequently, the Board not only accentuates corpographic solutions like the ferryman. Its initiatives and its developing sensitivity to corporeal issues have recently made new cartographies possible. An example is the mapping of various barrier elements along integral routes in priority areas in Brno, highlighting the necessity of making entire routes accessible between places frequently used by people with disabilities (see Figure 3). This involves a combination of expert and semi-participatory mapping in the context where the mapped subject does not have strong institutional or political support, but where new map visualizations can empower certain groups of people (Kim, 2015). Such visualizations can undoubtedly influence the transformation of the city corpography and can, for instance, guide decisions on where physical space adjustments might be more useful and on where, on the other hand, the concept of the ferryman might be more applicable.

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