

# Completion of the urban structure of the city center, disrupted by the intervention of the occupation government during World War II on the example of Brno (Czech Republic)

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**Abstract**

*In the very center of the city of Brno is still a block, which was due to the intervention of the German occupation government crossed by the street Milady Horakové, then known as Freiherr von Neurath Strass. This initial plan, which was motivated by the direct connection of the center with the Brno-Sever District, caused a complicated situation of the disrupted block structure of the city. This is supported by the post-war construction of a children's hospital on the west bank of the breakthrough and difficult terrain conditions. How to properly complement the disturbed urban concept and how to integrate these areas into the city center?*

**Keywords:** *architecture, urbanism, urban block, urban penetration, vacant lot, historical center, completion, regulation plan, Brno*

## Introduction

In the very center of the city of Brno is still a block, which was due to the intervention of the German occupation government crossed by the street Milady Horakova, then known as Freiherr von Neurath Strass. This initial plan, which was motivated by the direct connection of the center with the Brno-Sever District, caused a complicated situation of the disrupted block structure of the city. This is supported by the post-war construction of a children's hospital on the west bank of the breakthrough and difficult terrain conditions. The subject of this work was to find out the historical circumstances of the street, the analysis of the issue of the division of already established block buildings and the subsequent outline of the ideal solution in the form of the basis for the creation of the regulatory plan. This must respond to the already complicated urban situation, integrate the eastern part of the original whole and establish ideal conditions for the formation of the block structure, which will allow integration into the existing context.

## Location and delimitation

Brno (german Brünn, latin Bruna, hungarian Berén, yiddish בריין Brin) is a statutory city, which is the second largest city in the Czech Republic in terms of population and area. It is the largest city in Moravia and the former capital of Moravia. It is the seat of the South Moravian Region and also a separate district of Brno-City in the central part of the region. The city is situated at the confluence of the Svatka and Svitava rivers, has approximately 381 thousand <sup>1</sup> inhabitants and has about 600 thousand inhabitants in its metropolitan area.

In 1919, two neighboring cities were annexed to Brno - Královo Pole, Husovice and further 21 other municipalities. Thus, the so-called Velké Brno was established, which was up to seven times larger. The population increased from the original 130 thousand to approx. 220 thousand inhabitants. <sup>2,3</sup> The Brno-Zábřovice District is located between the area of the city ring road, which was built on the site of the original city walls and the Královo Pole District. It was originally as a village connected to the city in 1850 and on its territory the discussed street of Helena Malířová is located.

It was originally a part of Francouzská Street and was introduced as a separate street in 1939, when a new road from the intersection at Příční Street to Merhautova Street was broken through the block. This created a direct connection from the city center to the Černá Pole District and further north (Lesná, Soběšice), which, however, caused a number of urban problems that persist to this day.

The street was founded under the German occupation name Freiherr von Neurath Strasse. After the liberation in 1945 it was provisionally returned the name Francouzská. In 1946, the street was named Churchill in honor of the British Prime Minister, and after Jan Masaryk's death in 1948, the street was renamed in his honor and in 1952 it was renamed the October Revolution. This name persisted until 1990, when the street was renamed in honor of Milada Horáková.<sup>4</sup> The street is still very important in terms of the connection between the center of Brno and the

northeast of the city. Immediately after the construction of a breakthrough that led to Merhautova Street, a tram line was built to Černá Pole. At the northern end of the street, the Children's Hospital was built in 1953 according to a design by Bedřich Rozehnal.

### **Material and methods**

The aim of the work was a thorough understanding of the problem of disruption of the existing structure of buildings in the city center, an understanding of the historical context of this event and the response to the ongoing problems of the intervention. The result is thus achieved in the form of the basis for the development of the regulatory plan. It should integrate and shape the area through individual building plans so that it becomes a full-fledged part of the city center. It must also meet the social, economic and hygienic demands of the current population. This idea is then verified on the example of the design of concrete objects in the newly proposed area of development.

#### **Analytical assessment of the problem**

Understanding the history of the problem is an important intermediary for further determination. In case of any disruption of the urban structure, it is necessary to respond to the new circumstances in the shortest time horizon. Otherwise, disruption of the evolving structure is a source of undesirable elements, which are often a long-standing problem affecting urban spaces. Whether bombardments, insensitive traffic breakthroughs or brownfields occurring on the site of former industrial areas in the center, it is necessary to understand the circumstances of the problem. Thus, the original direction in which the development of the area has gone or will determine, together with the current situation, the form that the design of the architect or urban planner should approach. In connection with this historical context, it is possible to respond with a solution based on the basic understanding of the issue.

#### **Reference example of problem solution**

The problem of disrupted urban structures, whether by war interventions, redevelopment or the emergence of brownfields, concerns virtually most European capitals. Therefore, we can often find a reference example of a solution already implemented or at least verified by a design methodology. The adequacy of the reference examples is crucial, as the era of unlimited information flow often leads the creators of the city structure to an inadequate approach to the problem. It is necessary to consider critically all similarities of the situation and possibly to look for prefigured solutions already in the existing structure of the city. This methodology allows the application of a reference whose accuracy has already been verified.

#### **Design method**

In the design part of the project, in relation to the analytical and reference part, a solution can be created which, after the verification part, can become the basis for the regulatory plan of the area and thus establish the desired form of the project. It is important to be sensitive in terms of complementing the existing urban structure. The design should respect the direction in which a healthy part of neighboring areas or objects is leading. In this case too, the principle of adding and completing a place with regard to the existing character applies. Although it is necessary to consider the context in which we propose new solutions, we must take into account slight deviations. In the case of long-term problems, it is necessary to propose, with regard to the economy and urban development, a solution that, with slight deviation, will surpass the potential of its surroundings which may not always fully exploit its city-creative potential, whether for property, economic or regulatory reasons.

#### **Critical method**

The critical method is essential for the intention to complete wider areas. The resulting regulations, which underpin the growth of the city in the widest timeframe, affect a wide range of contexts. Specialists and experts in the sub-part of the city-creative project should be present at all critical parts of the process. Thanks to this method, it is formed into the final form and is then ready for verification. The architect or urban planner moderates a wide spectrum of expertise, which, from technicians through political representatives to historians, thanks to critical thinking contributes to the final quality of the design.

#### **Verification method**

If the urban structure is completed, a suitable method for verifying the correctness of the solution is the study of individual sub-elements of the proposed area. Based on the work with a specific typology and requirements of objects or areas, it is at least simulated that the design meets the requirements and objectives set

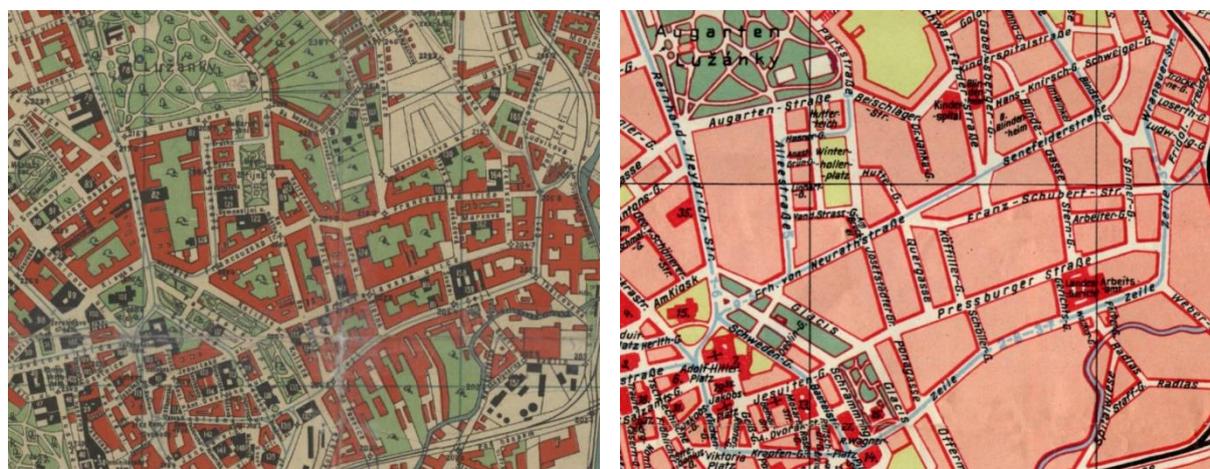
in the assignment. The results of the verification method can then be taken into account on the actual basis for the development of the regulatory plan. It will then be processed based on wider knowledge of the issue.

In consideration of the effort to complete larger parts of the existing structure of the city with adequate development, in most cases an approach denying the uniform processing of the area is a unified investment plan. Gaps and disturbed structures of wider centers are in demand commodities in times of housing crisis, which, due to administrative delays and other factors, plagues the necessary construction in all larger cities. That is why it is necessary, especially in the case of a uniform investment plan, to establish more typological types and adequate dimensions of individual parts, which simulate the natural development of the city environment. The concept so determined can be evaluated by the type design verification method based on its accuracy.

### Analysis

In 1919, two neighboring cities were annexed to Brno - Královo Pole, Husovice and further 21 other municipalities. Thus, the so-called Velké Brno was established, which was up to seven times larger. The population increased from the original 130 thousand to approx. 220 thousand inhabitants.<sup>2 3</sup> The Brno-Zábrdovice District is located between the area of the city ring road, which was built on the site of the original city walls and the Královo Pole District.

Zábrdovice (Obrowitz in German ) is a city district northeast of the center of the statutory city of Brno. Its cadastral area has an area of 1.64 km<sup>2</sup>. Originally an independent village, it was annexed to Brno in 1850. Since 24 November 1990, the territory of Zábrdovice has been divided between the self-governing districts of Brno-sever and Brno-střed and since 1. May 1998 also between Brno-Židenice. More than 12 000 inhabitants live here. The district is directly adjacent to the historical center of Brno and therefore has a distinctly urban character with a very dense development with several high-traffic streets. Historical two- and multi-storey residential buildings predominate, but there are often signs of inadequate maintenance.



*Fig.1 Map of The Great Brno, Barvič & Novotný, 1928, Mpa-1279.590 (left); Plan of The Great Brno, 1943 (right) (maps provided through vilemwalter.cz by Ing. Petr Cíkrle, Ing. Karel Dvořák, Ing. Radomil Dojiva, PhDr. Jan Pernička and historical department of MZM )*

The axis and at the same time the most important street in the district is the Cejl Street, which has a strong representation of civic amenities. The district houses administrative buildings of the Brno-venkov District Court and the Tax Office Brno I. and III. At the intersection of Tkalcovská and Cejl streets is a shopping center, on the site of the former factory Vlněna, whose building burnt down in 2001. Cejl extension in the Židenice part of Zábrdovice is no less important street Zábrdovická, which is the premises of the Military Hospital Brno Assumption of the Virgin Mary, extensive premises, once significant Zbrojovka Brno, well-known Municipal Spa Zábrdovice, or Brno Accident Hospital.

In 1939, the decision of occupying Germany broke gap through the original structure of the block - today's Milada Horáková Street. Immediately after completion of the street tram service was put into operation and the street became an important thoroughfare connecting the right city center with the Královo pole District, or the

entire city district of Brno-Sever. For example, the significant Brno housing estate Lesná is still connected to this axis. The whole situation of the construction of the damaged block was complicated immediately after the war by the construction of a new children's hospital. Such a modified western wing of the breakthrough could never be integrated in its neighborhood with the nearby hospital. Although the situation on the eastern side of the road is simpler in terms of completeness, it is nevertheless complicated by a large terrain difference. Not only because of the terrain, but also in terms of property conditions, urban green areas and complex connections to the original buildings, this dismal situation has not been solved to this day.



*Fig.2 Historical photography of the newly created street, Demolition of the building and penetrating the block (top left), Newly paved and finished street (top right, bottom left), Nazi party celebrating first tram ride of the street (photographies provided by [encyklopedie.brno.cz](http://encyklopedie.brno.cz))*

This intervention has long been reflected in the formation of the urban structure of the area and the problems of the situation are still evident. Not only is this a difficult area of construction, property and urban planning, but the current situation has also brought social problems. Due to the infamous reputation of the Brno-Zábřehovice area, or the Francouzská street itself and the absence of any city parterre along this gap site, it is a completely depopulated urban space. This is a very negative phenomenon in the immediate vicinity of the historic city center. Despite the effort to supplement the existing structure and to re-establish the system of traditional block development, there is a problem of complex traffic junctions of all roads, which may be another social barrier at the significant corners of the potential block. This is also a very complicated situation in terms of hygiene principles of the construction, as the street line of the proposed block rotates almost exclusively to the north side. An equally significant problem is the relatively steep ascent of the street, which, perhaps with a positive impact, makes the design of large coherent projects more complex.

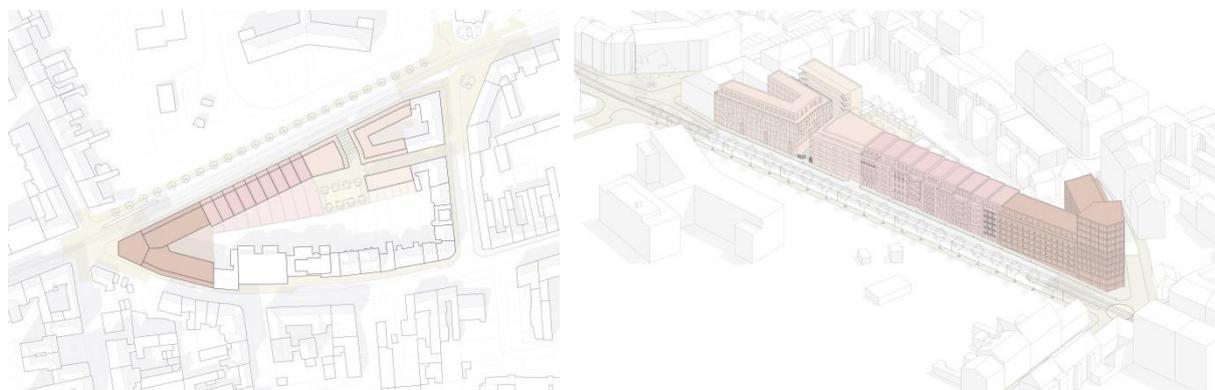


*Fig.3 Photography of the current state of the plot, Dron photography of the Milada Horakova street (left), Photography of the main corner on street intersection (right), (photographies provided by David Menšík)*

The most important task is to integrate the proposal itself into the current situation. This is not only a matter of continuity to artificially interrupted urban structure, but also scale continuity. It is important that the scale of development complements the current situation with some development deviation. Not only in terms of the basic unit of the multi-storey street block of flats, but also of larger and important corner buildings. These aspects, also with regard to the creation of public space, are quite clear clues in shaping the new block structure.

### Results

The first issue we dealt with was the historical injustice of this corridor, which just remotely resembles a vibrant city corridor. Our intention was to find a prototype in Brno street, which can be a good reference for a new solution in this area. We saw the model in a quiet and very attractive street Pellicova, which despite its central location retains a pleasant residential character. This is despite the fact that one side of the street is in large proportion of its length formed by a wall, behind which the park of the Špilberk Castle is located. The image of this street is very important, because the gardens of the adjacent hospital are not available as building plot even in a wider time frame. Thanks to this fact, on the eastern side of the street is an ideal place for very quiet housing on a small scale, whose prestige lies not only in the view of the gardens and the city itself, but also within walking distance from the center.



*Fig.4 Result of the urbanist proposal for completion of the block Brno-Zábřovice, Proposed site plan (left), Axonometric view of proposal (right), (David Menšík)*

Quite a different typology is the corner of the emerging block, which delineates a complex intersection of many streets with great potential for development and growth in all directions. At the intersection of Černopolní and Milada Horáková streets, there is a crossroads that serve not only other streets, but also visitors to the Children's Hospital. At the crossing of Francouzská and Milada Horáková streets, a sharp corner of the block towers towards the city center and is located on the view axis from Moravské náměstí. Following the example of historical buildings, these places are ideal for larger dominant buildings of multifunctional and administrative purpose.



*Fig.5 Visualisations of the urban proposal for completion of the block Brno-Zábrdovice, Visualisation of the towering block corner facing the city centre (left), Bird perspective visualisation of proposed site (right), (David Menšík)*

However, the entire Milady Horákové Street is today mainly a transport corridor, which in order to build a high-quality development must, by its nature, approach the traditional structure of the city. Of course, it is not realistic to close the historical block back to its original form. However, it is possible to provide a pleasant and safe environment for pedestrians, cyclists, cars and public transport. There was a need to find a solution that only slowed down traffic enough to make it more attractive for drivers to use the newly built, large city ring road. This solution has already become a "shared space". On its area the means of transport are forced to slow down when passing and, by means of a change in the level or surface treatment of the road, they are alerted to pedestrian crossings in multiple directions. This solution will create a pleasant space not only for newly built capacities, but also for existing and future residents, or subscribers.

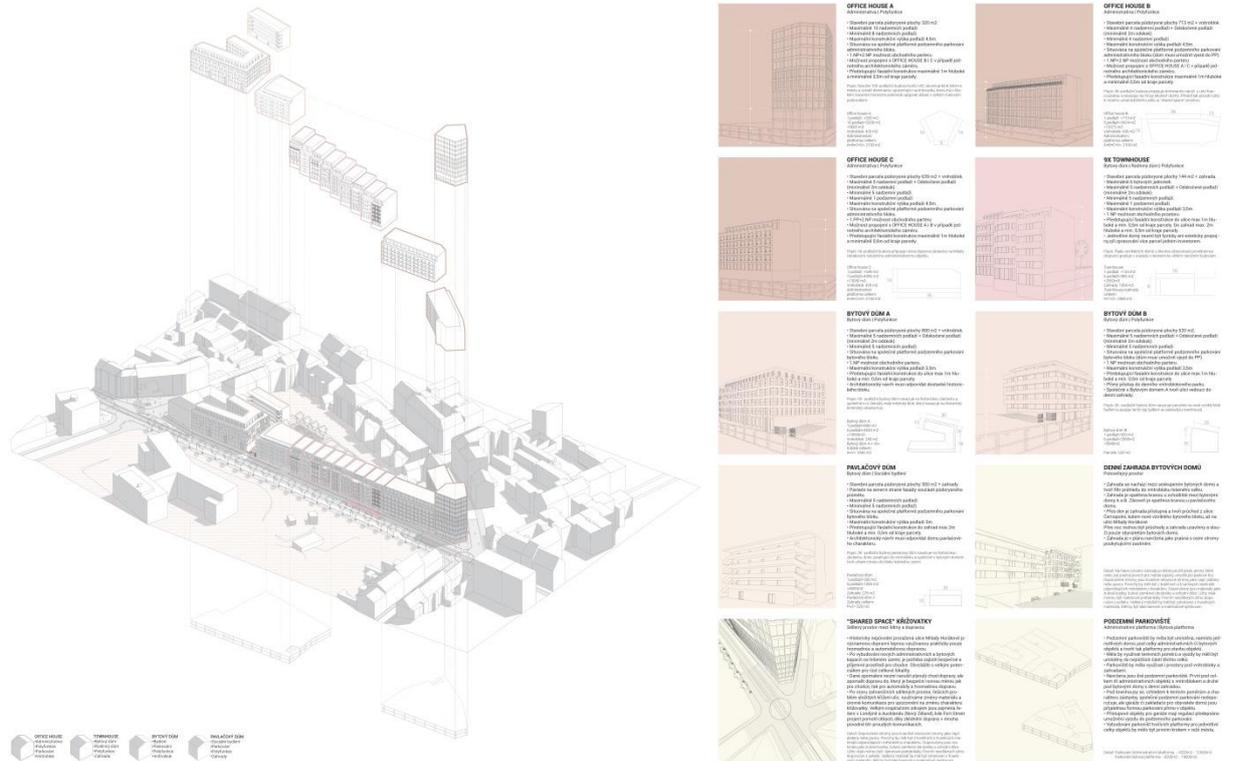


Fig.6 Axonometric explanation of newly found block structure and verification of its correctness, Axonometry of block structure (left), Example of verificating documents regarding purpose of the object types (right), (David Menšík)

In this area we have placed a wide range of objects that, in our opinion, will create a new block and support the growth of this city area. First of all, we are placing three administrative buildings (or one large building) with a commercial parterre on the crossing of Milady Horákové and Francouzské streets. They are situated on one common underground parking platform using terrain conditions. The corner building is elevated by several floors and creates a landmark setting out a block towards the city center. This dominant unit is connected with the Milady Horákové street by the row of townhouses which are vertical apartment, or luxurious family houses with deep and narrow disposition, which use land geomorphology, and dilutes the long street into smaller facade units, gradating to the next large corner grouping. On the newly built crossing of Černopolní and Milada Horáková streets, we preserve the historical development and supplement it with a larger apartment building. Thus, with the original building, it creates a smaller housing block with a commercial parterre, which is instilled into the newly designed development and thus creates another significant corner. Milada Horáková's façade line is separated from a small block by a staircase street, which adds another façade to a smaller apartment building that connects a group of apartment buildings to a row of townhouses. This street leads to the inner-block day garden, which is part of the passage around a small apartment block during the day. Overnight, this garden is closed and serves only residents of newly built apartment buildings. In connection with the existing buildings forming the street into the courtyard, there was the possibility to create a single social housing unit of a new area. Its location and northern facade are an ideal opportunity for traditional gallery acces buildings. This house, together with a small block, creates another gateway to the courtyard, which again ends with a daylight garden filter. The whole group of blocks of flats is again located on a common underground parking platform, serving residents of the whole project.

## Conclusions

The proposal of the block of the Brno-Zábrdovice outlines a possible approach to the solution of the urban structure, the development of which was disrupted by external intervention. It is important to follow proven urban design principles and respond to non-standard issues on the basis of reference examples, which has proved to be a suitable approach in this case. Gradation of smaller buildings to larger corner buildings, shared space of complex traffic intersections, inspiration from the existing structure, which has already been rooted in similar situations, and efforts to undermine the potential of a unified concept of a unified investment plan. These factors made it possible to complete the damaged structure of the city in the context of the original development. The social impact of the creation of a new urban parterre in a place where no social interaction has taken place so far is, at this stage of the assignment work, only a presumption. However, we can expect a significant improvement in the situation, which was clearly undesirable in the wider city center.

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