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**Urban strips: the case of two streets in Łódź, Poland**

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**Abstract**

*The phenomenon of an urban strip still requires a more in-depth investigation. An essential element in a city street network, which offers access to its internal system, the strip often features a chaotic, visually polluted space that we are all forced to use. This paper aims to fill in the above gap looking for explanations in the context of a post-socialist European city.*

*To fully understand the spatial problems of an urban strip, the multidimensional approach to the subject is needed. Therefore, we propose the systematic analysis which would enable us to look at the problem from several urban morphological perspectives (Oliveira, 2016). As a starting point, we use the timeless study in the field of strip research (Venturi et al., 1977), which we further extend applying the methodology and findings elaborated for the American strip (Scheer and Larice, 2014; Scheer, 2015). While researching the genesis of the phenomena and the local context, we draw from the studies developed by Polish researchers grounded in the field of historical geography (Koter, 1990). Finally, we look at the perception of space through the lenses proposed by Lynch (1960).*

*By separating and then combining multiple factors that contribute to the strip space, we can obtain a comprehensive depiction. Such an examination uncovers the problems of this space which, despite the passage of time, remain unsolved. We use the typo-morphological approach to the analysis of urban layouts to organize the content, and we present the outcomes as an urban form matrix.*

*The paper addresses the above issues using the case studies of the two urban strips in the third-largest city in Poland — Łódź. The results of the research reveal the organization of these transit areas and their excessive commercialization. At the same time, they enable us to formulate recommendations for the sites' redevelopment.*

**Keyword:** strip, street, traffic

**Introduction**

The term strip often collocates with attributes such as chaotic, commercial, or urban. It is an element of urban form, which reflects the elevated consumption and global capitalism of modern times. The space, dominated by heavy traffic and visual pollution, seems neglected by urban planners and designers. This chaotic space has never been considered attractive and was thus put aside while other, more critical issues of city design were discussed.

All these processes, the policy of the city authorities, preparation of planning documents, contributed to the separation of the city tissue from roads. These independent elements on paper, in fact, form an entirety in the space.

Meanwhile, the street system is one of the crucial elements, and it should be designed and observed with the same attention as others. Streets' typology covers a range of categories that depend on their location, form, the intensity of traffic, management type and configuration of streets system in a town (Marshall, 2005, p. 52). One road type, that plays a crucial role in city functioning is an artery — a congested road that is accompanied by a strip of service and commercial buildings and parking, stores and other elements. This situation repeats globally; however, depending on local conditions, particular idiosyncrasies might be noticed. In the current paper, we deal with the post-socialist cities, particularly with the Polish city of Łódź. Its street system features, an enclosed ring road, from which the arteries conduct traffic inside and outside of the city.

## Research Background

Before car invention, the roads leading out of town were pleasant place for a stroll. At the beginning of XX century, one lane road was enough for a carriage that appeared once an hour. Abruptly, the transport development and the mass production of a car vehicles in 1913 by Henry Ford, American entrepreneur from Detroit, had changed the image of cities forever (Mumford, 2018, p.115). In USA, the demand for cars was huge due to the development of single-family housing on the suburbs as a reaction to The Great Depression. Due to the housing shortage, more and more houses were built in the suburbs of the cities, the car was easily available and cheap in exploitation (low fuel price) (Juzwa & Gil, 2013, p.16). Streets in turn were adjusting to the potential users in both function and appearance and primary users of the roads leading out of town were the drivers. Due to high number of vehicles, services dedicated for the drivers started to show along the arteries. What is more, some of the streets were designed with only one goal: to be efficient for motorized vehicles (Scheer & Larice, 2014, p.153). In Poland, due to the political reasons, the automotive development started for real after the fall of communism in 1989. Clearly, as *demand made supply* the new system was favorable for the emergence of various service buildings along the arteries.

The development of roads was also the begging of outdoor advertising era. The factor that encourages a driver to pick specific service is — in theory — a visible advertisement. Because of the tight field of view in the quickly moving vehicle, all the advertisement boards must be placed as close to the road as possible, they need to be large-sized, and have flashy colours in order to draw the driver's attention (Mikosz, 2010, p. 46). Therefore, today's space around arteries seems to be an endless advertising banner, rather than a street.

## Methodology

For the needs of this article, we propose the system of analyses based on chosen research methods to study urban morphology. Due to the visible gap in research on city arteries, the interdisciplinary methodology is needed.

First factor to be considered is the morphology studies — as main schools of thought already gave different methods that can be applicable to the discussed case study. British school with geographical approach puts landscape elements on the first place (Oliveira, 2016, p. 103). This approach is fully focused on city plan and building usage. To follow the chronological evolution of a city form, the historical maps are fundamental data source. Deep research on city past leads to understanding the current plan of a city.

Another valuable approach has been also described by Brenda Scheer and Michael Larice (Scheer & Larice, 2014, p. 152), who were analysing intersections in the Salt Lake City valley, where holistic studies of urban morphology have been done. Their studies covered pattern of roads, lots, buildings and building types, with various analysed factors like the depth of plots next to the artery. All these aspects were mapped in a half-mile radius from the centre of nine selected intersections. Those analyses were supplemented by historic maps and aerial photos.

Another literature position that was a clear inspiration for this paper and influenced its methodology development was “Learning from Las Vegas”. As there are no casinos or wedding chapels along Julianowska and Inflancka Streets in the city of Łódź, we would like to show another activity pattern, and focus on the ground coverage, which in our scope — similarly to Las Vegas landscape — is mostly asphalt. Also, it is crucial to point out how much this space is polluted with advertising boards.

Another of chosen methods is taken from “The image of the city”, where author gives his five qualities that city has: paths, edges, districts, nodes, and landmarks (Lynch, 1960, p. 27). This approach allowed to see the city from a different perspective, dividing its components into easily distinguishable forms. For the needs of this case study, landmarks have been briefly described.

All methods are illustrated by using graphic analyses of land use, the coverage of ground, history, and functions with an emphasis on the image of the street (Venturi et al., 1977, p. 27) and main components of space that appeared in “Image of the city” (Lynch, 1960, p. 88).

In conclusion, the history will be discussed separately, while analyses will focus on the structure development, components, and usage of space. By combining the above factors, it will be possible to define both positive and negative aspects of the space.

## **Case study**

Łódź is one of five largest Polish cities. Regarding the logistics, thanks to its location in the central part of the country, it provides high investment attractiveness. The city has a visible bypass and arteries leading to all minor cities around (Figure 1). From the north, the part of a city bypass is Inflancka Street, which then leads to Julianowska Street (Figure 1). These streets function as traffic corridors. In the city structure their form is

a readable barrier between various residential areas that represent opposite typologies, scales, and aesthetics.

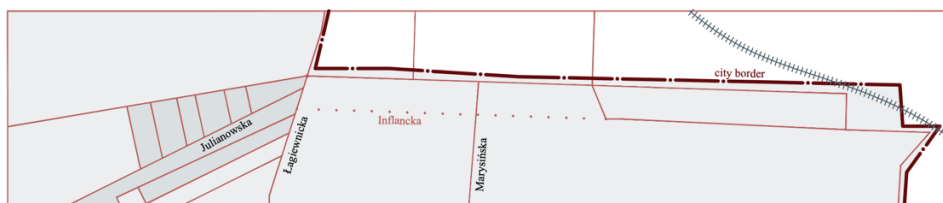


**Figure 1** Orange colour on the map of city of Lodz indicates the current state of Julianowska and Inflancka Streets, where Julianowska Street category is country road, class – collector street; length is 975m; Inflancka Street category is state road nr 72, class – main street, length is 2 110m. Pink dots indicate city bypass, yellow ones indicate other major roads, navy indicate local distributor road, red indicate fast traffic trunk road.

## History

Łódź as a little village first appeared on maps in 1423, however it developed years later. The main cause and purpose of the city growth was industrial revolution, and the fact that the city in 1820 together with other nearby towns, was selected to be the centre of textile industry (Koter, 1990, p. 110). As textile city was growing, its population was also increasing in a much more spectacular way: from 500 habitants in 1820 to approximately 600 000 in 1914 (Główny Urząd Statystyczny, 2018). Consequently, new settlements had to appear farther and farther away from the city centre.

At the beginning of the 20th century, the area of the discussed arteries was outside of the city boundaries. At this time, it was part of Bałuty village and Marysin grange, which were located to the south of the city of Łódź. In 1915, the city authorities decided to expand administrative area of Łódź to incorporate Bałuty and other nearby villages. The terrains of the Bałuty district were at the south of the discussed arteries, on the north — there were the Julianów district, and (still separated from the city) the Marysin grange (Figure 2).



**Figure 2** 1929. Julianowska Street is already existing. Light colour is a non-built-up area, dark is built-up area.

The interwar period brought industrial stagnation to Łódź and the necessity to restructure the economy. Despite the difficult situation, the city has experienced a significant population growth and massive territorial

expansion, mainly due to single-family housing (Figlus, 2020, p. 79). One of the housing estates built for the civil servants was “Kolonja Skarbowców” next to Julianowska Street which was already a part of city.



**Figure 3** The node on the intersection of Julianowska and Zgierska Street in 1939.

Representative villas (Figure 3) from that period have been built in the manor-house style. The terrains to the north from Inflancka Street (the Marysin grange) were non-urbanized until the 1930's, and only in 1933 origins of streets layout started to appear on the map. The district that was transformed the most during the Second World War was Bałuty, since just next to Inflancka Street, in 1940 Ghetto for the Jewish community was created. After the War the district of Marysin had still been developing – single-family tissue became denser and later transformed into a calm residential area full of greenery (comparing to other city districts). Due to technological advancements and social changes after the War, a new building system had been developed. The housing estates in the modernism style were built with the use of new technology (called large-panel-system-building) not only in Łódź, but in the whole country (Chomatowska, 2018, p. 166). The building process of the high-rising blocks of flats started between 1971 and 1975. In the 70's the construction of the residential multi-housing area of Jagiełło estate began. The modernistic project covered 39 buildings, including 17 tall blocks, where most of them were built in the characteristic type called waver (Figure 4).



**Figure 4** Wavers on Jagiełło estate today.

After the old regime (PRL – the Polish People's Republic) collapsed, private entrepreneurs had a free hand to develop their businesses. Both Julianowska and Inflancka Streets became heavy traffic roads; Inflancka is also a part of city bypass. Therefore, along them more and more services for the drivers started to occur; also, more and more areas were designated for parking lots.

## Research

Following part of the text focuses on current situation and discusses the present infrastructure along streets under consideration. The scope of analyses is the closest surrounding of both arteries. It also covers all the buildings visible from both streets, that can influence the perception of the user (the plot division has been also considered).

## Analyses (detailed description for selected analysis)

### 3/ Landmarks vs. hypermarkets

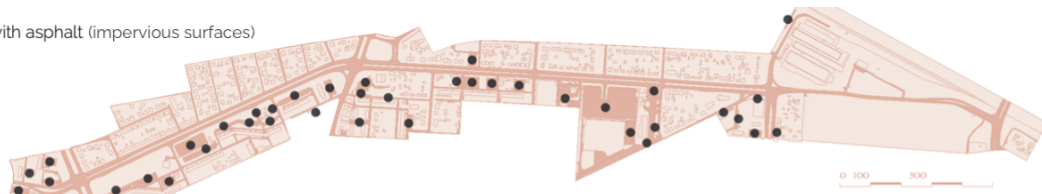
Landmarks are a special form in urban space, something which is unique in the scale of the city, and cannot be replicated anywhere, while hypermarket buildings must be identical (among one brand) in every city and country. The comparison of these two easily recognizable space components will show interesting mix that occurs in the discussed space. Most important landmarks are urban structures: single-family housing estate “Kolonja Skarbowców” which is unique in terms of style and history, and Jagiełło estate with dozens of iconic blocks of flats (wawers). On the other hand, large-area hypermarket together with parking lots is a very repeatable form along Inflancka Street. In the scope of study there are four of them: Aldi, Tesco, Leclerc, LIDL.

#### 3. Landmarks vs. hypermarkets



#### 4. Areas paved with asphalt (impervious surfaces)

- parkings



#### 5. Advertisements

- advertising boards (sp)
- billboards (st)



Figure 5 3.-5. Analyses of Inflancka and Julianowska Streets.

### 4/ Areas paved with asphalt (impervious surfaces)

In accordance with the Las Vegas analysis (Venturi et al., 1977, p. 24) particular attention should be paid to street components, in our particular case we would like to focus on surface of the ground — asphalt, or more in general on impervious surfaces. This material dominates in the scope as it is used for road construction. Also, enormous parking terrains next to various services are paved with asphalt. There are 25 parkings that are located just nearby Julianowska and Inflancka Streets, and almost 40 in the study scope. The accumulation of parking spaces on the south side is due to the streets commercial character.

### 5/ Advertisements

Another urban space component that is present in the scope, inspired by “Learning from Las Vegas” are advertisements. Because of the level of commercialization of the space a lot of large-area hypermarkets, singular enterprise, carwashes and gas stations, the space is dominated by various types of a large-sized

advertising boards. Some of them are billboards visible from a long distance, some of them are the signboards of services.

### ***Analyses — summarizing***

The area around Inflancka and Julianowska Streets is dedicated to the drivers. There is lack of activity for strollers, lack of good infrastructure for residents and lack of greenery. The user of this space may get the impression of being on the highway instead of the suburbs of a large Polish city. Despite the aesthetic chaos and ubiquitous asphalt, at least consistent single-family housing is visible in the urban structure.

## **Discussion**

The history study and multidimensional analyses on Julianowska and Inflancka Street show many invisible aspects of the material space. Today's image of the space is the result of many long past processes. Arterial development needs to be understood, since it was not originally designed in any particular manner. Each part of it was designed in different time, under different politics, by different subjects. This complexity of time and process leads to the space disorder we can experience today (Table 1).

Positive	Negative
Both streets with rich and complex history background. "Kolonja Skarbowców" registration as the historical monuments.	No remembrance or respect for the historical events.
Nodes – intersections of numerous bus and tram lines.	No infrastructure for pedestrians and cyclist.
Important in proper city functioning.	Space near road dominated by advertisements and parking lots.
	Services dedicated for drivers.
	Modernization. Greenery replaced with asphalt.

**Table 1.** Positive and negative aspects of arterial development.

### **Additional factors**

The arteries, bypasses, major roads cannot be forgotten during the planning process, due to their significance, and the importance in the structure. Key issue is setting down the visible boundaries, while implementing the gradual speed limits, closer and closer to the centre of the city. First, the readable boundaries that will gradually reduce use of private cars, need to be designated.

The fact that cannot be forgotten is that in theory, the street links some individual city districts, but practically — it divides area into separate fragments. The problem of using the street appears locally, where the road is the barrier for the pedestrian — just like in the case of Julianowska and Inflancka Street — the street cannot link and divide at the same time.

Additionally, infrastructure is a side effect of massive traffic-oriented arteries. Not only asphalt, signs, or traffic lights, but services, which must be on the way and on the entrance to each bigger city. Motor development has led to the situation, where people who live next to the city bypass, instead of going to local services, decide to go to the places located among the roads — this is also the case of discussed arteries. In general, the key issue is wider choice, lower prices, and the free parking place guarantee (Mumford, 2018, p. 116). Within the motor development streets started to be associated only as traffic-oriented places.

## Conclusions

Analysis presented in this text leads to the following conclusions. The transition space, which is the road leading out of town, has been commercialised and developed to expose various services and advertisements as much as possible. Analysed streets, their structure and scale has been ultimately designed for the drivers. Urban strip can be attractive, if it is designed as a part of a city structure, where not only drivers but also pedestrians and cyclists are taken under consideration. The role of the street cannot be underestimated, because only owing to it, the city can function in a correct way.

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