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UNUSED CARS IN WROCLAW – IN TERMS OF USING CITY SPACE

NIEUŻYTKOWANE SAMOCHODY WE WROCŁAWIU – ASPEKT WYKORZYSTANIA PRZESTRZENI MIEJSKIEJ

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Abstract: Excessive traffic and the insufficient number of parking spaces pose a challenge for the authorities of large urban centres, which is why it is important to effectively use the infrastructure resources. An example of actions that reduce efficiency regards unused cars in public parking. The discussed problem should be considered in the context of the impact on spatial order, and the phenomenon of misappropriation of public space. This article analyses Mobility Policy of the City of Wroclaw and data on the intervention of the Municipal Police of Wroclaw regarding the disposal of unused vehicles according to article 50a and 130a of Road Traffic Law. An integral part of the article is a survey examining the opinions of the local community. Unused cars have a negative impact on the quality of space and life of residents, which is manifested by a decrease in the efficiency of transport infrastructure, degradation of green areas, appropriation of public space and disturbance of spatial order.

Keywords: unused cars, parking policy, interventions of Municipal Police, city, spatial order.

Streszczenie: Wyzwaniem dla władz miast jest nadmierny ruch uliczny i niewystarczająca liczba miejsc parkingowych, dlatego istotne jest efektywne wykorzystywanie dostępnych zasobów infrastruktury. Przykładem działań, które obniżają efektywność, są nieużytkowane samochody na parkingach

publicznych. Omawiany problem należy również rozpatrywać w kontekście oddziaływania na ład przestrzenny, zjawisko zawłaszczenia przestrzeni publicznej. W artykule została przeanalizowana WPM i dane dotyczące interwencji Straży Miejskiej Wrocławia odnoszące się do usuwania nieużytkowanych pojazdów na mocy art. 50a i 130a Prawa o ruchu drogowym. Integralny element artykułu stanowi ankieta badająca opinie lokalnej społeczności. Nieużytkowane samochody mają negatywny wpływ na jakość przestrzeni i życia mieszkańców, co przejawia się zmniejszeniem wydajności infrastruktury transportowej, degradacją terenów zielonych, zawłaszczeniem przestrzeni publicznej, zaburzeniem ładu przestrzennego, obniżeniem funkcjonalności terenów.

Slowa kluczowe: nieużytkowane samochody, polityka parkingowa, interwencje Straży Miejskiej, miasto, ład przestrzenny.

1. Introduction

Nowadays almost every family has a car, often more than one. A car is the basic mode of transportation. Traffic jams and difficulties related to parking do not discourage many drivers because in exchange they gain independence (Skoczylas, 2016, p. 143). In 2002 there were 290 cars per thousand Polish citizens. In 2018 this number grew to 610 cars per 1000 Polish citizens (GUS..., n.d.). The indicators testify that the shortage parking places affects a significant part of the population. The dynamic increase in the number of vehicles combined with the insufficient adaptation of the technical infrastructure and the high density of buildings in urban areas disrupts the functioning of urban systems and is troublesome for residents. It should be emphasized that an insufficient number of parking spaces occurs not only in the city centres, but also in areas where multi-family buildings dominate. Unused vehicles block parking spaces for months and even years.

There are scientific papers in the literature that deal with the problems of transport infrastructure, the availability of parking and parking as a city landscape, but the study of unused cars in the city space is a unique approach to both the use of urban space and the city's transport system. This applies to Wroclaw and other cities in Poland. In addition, publications about parking space deficit are focused on city centres, and not on residential areas with multi-family buildings.

The purpose of the article is to discuss the impact of unused cars on spatial order, to consider them in the context of the process of the misappropriation of public space. Asking the research question helps with further considerations: how does the phenomenon of unused cars affect the use of space and life of residents? The subject of the study concerns the legal regulations, the parking policy of Wroclaw and the barriers to the development of parking infrastructure and the number of Municipal Police interventions involving removing vehicles from the road in accordance with article 50a and 130a of Road Traffic Law. The data comes from the annual record of the results of activities available in Public Information Bulletins. The research period covers the years from 2010 to 2018, the reporting period which contains statistics on the subject of removing cars from the road. An integral part of the article constitutes

the survey methodology carried out among Internet users. It allows to assess the state of knowledge of the respondents about their rights and obligations according to Road Traffic Law. The survey responses were collected from 5 to 15 December 2019. The author's research was based on the descriptive method, simple statistical methods and the survey method. The categorization was made by the observational method.

The paper makes it possible to recognize the problem of unused cars in urban space and to make society aware that keeping unused cars on public areas is illegal and that this practice can be countered. In addition, it can stimulate actions increasing the efficiency of using parking spaces for the city authorities, and people creating strategic documents that concern parking policy and urban transport.

The article consists of six sections, supplemented with an introduction and conclusion. The first and the second section of the article are theoretical considerations referring to spatial order and the misappropriation of space. The next section focuses on the legal regulations. The fourth addresses the availability of parking spaces in Wroclaw, while the next section discusses the legal regulations of the parking policy of Wroclaw. Section six presents statistical data on the intervention of the Municipal Police of Wroclaw, and the conclusion shows the results of the survey regarding the identification of the problem in residential areas in Wroclaw.

2. Unused cars – theoretical approach to the use of urban space

The theoretical part of the article uses literature analysis with elements of critical analysis. Basic concepts and theories related to spatial development are presented which relate to parking infrastructure, unused cars and their impact on the residents of areas where multi-family buildings dominate. The theoretical part is an introduction to the empirical part of the research work.

The increased level of motorization and traffic congestion in fact decrease the quality of life. People who live in large cities are taking more time to move in the city space (Kisielewski and Skóra, 2016, p. 45). Additionally, insufficient parking spaces also increase the time needed to travel from point A to point B.

Planning the transport infrastructure, including cars, constitutes one of the greatest challenges of the spatial development of large cities. Spatial development plans adopted in the last few years assume at least 1 parking place per flat. Often this ratio is 1.3, 1.5 or even 2 but in the city structure older buildings dominate so the number of parking places was much lower (Skoczylas, 2016, p. 144).

The creation of strategic documents, i.e. a local spatial development plan or mobility policy, whose aim is to develop and improve the functionality of cities should be based on current data to present the actual state of the space in the most realistic way possible. An example of activities that enable the adjustment of car infrastructure to demand is the geolocation of vehicles (Feltynowski, 2016, p. 68).

Cars and parking lots belonging to the communication infrastructure are the most common elements in the urbanized landscape, constituting the so-called everyday scenery which accompanies residents in their daily activities. The quality of the technical condition and aesthetic value of parking places express a harmonious or dissonant appearance of the environment, thus deciding about spatial order or the lack of it (Burdziński, 2012, p. 22).

Every driver wants to be able to park as close to his/her flat as possible. This causes an accumulation of vehicles in the direct vicinity of residential buildings, which intensifies the problem of greenery degradation as the new internal roads are created. These factors negatively affect the spatial order of areas where multi-family buildings dominate (Skoczylas, 2016, p. 144).

The performance and the quality of communication infrastructure are important factors affecting how a city functions. Nowadays, significant attention is paid to solving parking problems in urban centres which affect the image of cities image, and their attractiveness from the point of view of tourism and business. The areas with multi-family buildings are often forgotten but the condition of their infrastructure has a strong influence on the quality of life of the residents (Antosiewicz, 2008, pp. 38-40).

Unused cars can be also considered in the context of the misappropriation of public space. Public space is defined as a separate area of the city space which, as a result of the means and location in the urban structure, serves to meet the needs of direct contact for community members and other needs, but provided that physical accessibility for other interested parties is preserved with a temporarily limited availability because of security or the way of use (Lorens and Martyniuk-Pęczek, 2010, p. 10). People often abuse public space and treat it like their own private space. In the opinion of the author this is one of the causes for leaving unused (abandoned) cars in public parking spaces. Additionally, the owners of those cars do not acknowledge the problem.

Vehicles and parking infrastructure are inseparable elements of the current urban landscape. Insufficient parking is a widely known but also a growing problem. Newly built housing estates try to counteract the problem by designating a larger number of parking spaces, but in the case of existing buildings this is often impossible due to the lack of e.g. underground parking, limited above-ground space and the high costs of multi-storey car parks. A commonly used solution is to transform green areas into parking spaces, which is often insufficient and in addition makes housing estates less attractive for people. All these arguments stress that unused cars interfere with the rational and intended use of the available parking resources.

3. Road Traffic Law in the context of unused cars

The basic document regulating the procedure in the case of removing vehicles from the road and vehicles whose condition indicates that they are not in use is Road Traffic Law; this problem is regulated by two articles. Article 50a paragraph 1 is the legal basic for vehicles which do not have licence plates or their condition indicates that they are not in use. The legal provision informs that specified cars can be removed from the road at the expense of the owner or holder. The authorities responsible for this area are the Police and the Municipal Police. Paragraph 2 states that a vehicle which is not moved by the authorized people after a call from the municipality during 6 months (time is counted from the date of removal from the road) is considered as intentionally abandoned and becomes the property of the municipality. Paragraph 3 stipulates that this law is not enacted if the failure to collect the vehicle was independent of the obligated person, and paragraph 4 specifies that the car becomes the property of the municipality if the person authorized to collect is has not been identified (Ustawa z dnia 20 czerwca 1997...).

Article 50a also informs about the existence of the ordinance of the Minister of the Interior and Administration on the removal of vehicles left without licence plates or whose condition indicates that they are not used. This document defines the mode, the parties that are authorized to conduct activities and the terms of cooperation applicable to them. The main element is description of the procedure for removing vehicles. The regulation contains the example procedure for removing vehicles, which includes:

- the legal basis on which the intervention is based,
- the make of car and vehicle registration number if it has licence plates,
- the reason for removing the car,
- damage to vehicle,
- additional car equipment,
- who is to remove the car,
- an indication where the vehicle will be handed over.

It is the municipality's responsibility to take immediate action to determine the owner of the removed vehicles and then informing him/her in writing about the actions taken, and the consequences, including financial (Rozporządzenie Ministra Spraw Wewnętrznych i Administracji z dnia 22 czerwca 2011 r. sprawie usuwania pojazdów pozostawionych...).

It should be emphasized that vehicles that after six months become communal property are in most cases of low value. The municipality, as the owner, manages what happens to them (e.g. utilization, auctioning of the acquired property) and charged with the costs.

The next legal article which allows the authorities to remove the vehicle from the road is Article 130a. It distinguishes situations in which vehicles are removed from the road at the owner's expense when:

• the vehicle has been left in a forbidden place and obstructs traffic or creates a different type of danger,

• the driver refused to show the contract or to confirm the current civil liability insurance policy,

- the car does not meet the standards about weight, permissible load on the road,
- leaving the unmarked vehicle (without a special permit) when that parking place is exclusive for specified people,
- leaving the car in place where the signs indicate that the left vehicle will be removed from the road at the owner's expense,
- the vehicle is driven by person who does not have the driving licence or is intoxicated, and the car cannot be taken away by another authorized person.

Additionally, the article distinguishes situations when the vehicle can be removed from the road, for example: the location of the car hinders rescue operations. Instructions regarding the movement or removal of vehicles are issued by a police officer, municipal police officer or the person who conducts the rescue operation. After intervention the vehicles are in an officially designated guarded parking lot. The owner has to pay for the removal of the vehicle and its parking. Articles 5 and 6 describe the rules and the binding rates for local ('powiat') authorities in fulfilling this obligation.

Similarly to Article 50a, Article 130a informs about the existence of the ordinance of the Minister of the Interior and Administration on the removal of vehicles endangering the safety or order of traffic, or obstruct rescue operations. This document is based on the principle of respecting property rights and ensuring order on public roads (Rozporządzenie Ministra Spraw Wewnętrznych i Administracji z dnia 22 czerwca 2011 r. sprawie usuwania pojazdów, których używanie...).

Article of Road Traffic Law states that all legal provisions in this document apply for vehicles which are located on public roads, inhabited zones and traffic zones. The situation becomes more complicated when unused cars are located in parking lots belonging to housing associations or internal roads.

4. Accessibility of parking place in Wroclaw

This section is the result of using simple statistical methods and the observational method.

In Wroclaw there are registered around 640 thousand residents, but in fact the number of inhabitants is much higher, it is estimated that it is about 780 thousand (Kamiński, 2019, p. 58). The city covers an area of approximately 293 km². The population density in the city is 2191 people/ km². Currently, nearly 450 thousand cars are registered in Wroclaw (GUS..., n.d.). Over the past several years, their number has been gradually increasing (Figure 4.). When comparing data from 2002 and 2018, it should be noted that their number doubled. In 2018 in Wroclaw there were registered 20 thousand cars, and in the last few years there were more than 10 thousand registrations per year. When analysing the data, it should be noted

that these data relate only to passenger cars. The total number of motor vehicles in Wroclaw amounts approximately to 540 thousand (GUS..., n.d.).

In fact, there are even more cars on Wroclaw roads. Many people who live in the city have cars registered in their hometowns. To a large extent, this is due to cheaper charges.

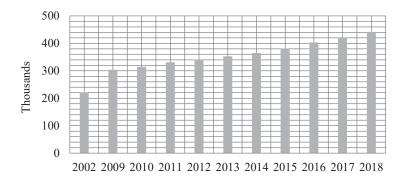


Fig. 1. The number of registered cars in Wroclaw in 2002 and 2009-2018

Source: own work based on data from GUS (Central Statistical Office in Poland).

In addition, residents of surrounding towns generate significant traffic as a result of the circular migration process. The results of a comprehensive traffic survey in Wroclaw and the surrounding area carried out in 2018 showed that nearly 240 thousand people enter the city during the day from agglomerations (BIP, n.d., a). For comparison, according to a previous survey from 2011, there were about 190 thousand vehicles (BIP, n.d., a). Up to 31 August 2019 Wroclaw had only 4300 places in paid parking zones (ZDiUM, n.d., a), therefore there were around 105 passenger cars registered in Wroclaw per 1 parking space. On 1 September 2019 the area of the paid parking zones was enlarged. Currently, the technical infrastructure is gradually being developed on the streets Wroclaw to increase the number of parking spaces in the pay-for zones (Uchwała nr VIII/197/19...). These activities are aimed to increase the turnover and increase the availability of parking places. As of 5 November 2019, the number of spaces in the paid parking zones increased to 4500 (ZDiUM, n.d., b), but these are only formal changes, because in fact no new parking spaces were built.

When cities are struggling with insufficient parking spaces it is worth to pay attention to the efficiency of allotting parking resources. Leaving unused cars is an example of the actions which reduce this efficiency. In the author's opinion the three most important categories of vehicles which are blocking parking places are:

- overexploited and obsolete cars (Figure 2),
- vehicles after accidents (Figure 3),
- cars or trailers which perform advertising function (Figure 4).



Fig. 2. An example of overexploited car in a residential area

Source: own material.



Fig. 3. An example of a car which performs an advertising function Source: own material.



Fig. 4. An example of a vehicle after an accident in a residential area Source: own material.

The first group of vehicles in many cases functions as a storage place for private goods or garbage. The next specified category influences perception of aesthetics in a negative way. Additionally, it may pose a security risk. In many cases damaged parts of cars are not protected in any way. Modern cities are overloaded with advertising (Czyński and Ostrowski, 2011, p. 220). They offer many possibilities to place advertising – therefore reducing the amount of space with a clearly defined purpose.

5. The parking policy – Mobility Policy of the City of Wroclaw

A natural consequence of excessive car traffic and the large number of vehicles per capita is the disruption of the system's flow, as well as a deficit of parking spaces. Strategic documents prepared by the local authorities are the answer to the problem of the insufficient number of parking lots of other aspects related to the malfunctioning of the transport system. One of them is the Mobility Policy of the City of Wroclaw which sets directions for development as well as transport and mobility in the city (BIP, n.d., b.). This section is based on the descriptive method and analysis of cause-effect relationships.

The main objective was to define the conditions for the effective and safe movement of people and goods in the space of Wroclaw and its metropolitan area with limited environmental impact. The general objective is supplemented with six basic objectives (Uchwała nr XLVIII/1169/13..., p. 4).

The basic objectives are implemented in the context of 15 areas, one of them is parking policy. The specification of this level indicates that the city authorities classify this as a problem and in need of improvement. The authors of the document draw attention to the relation between the supply and demand for parking spaces and their importance in the context of the functionality of public transport. The key tasks include:

- coherence of the parking system with road transport and public transport,
- maintaining a varying degree of city accessibility using car transport,
- extension of the paid parking zone,
- development of the Park&Ride parking system,
- active shaping of parking requirements in newly built buildings,
- promoting short-term stops, which enable dynamic turnover of cars in places with a limited number of parking spaces,
- diversification of parking policy, taking into account the specificity of the area (city centre, area of tourist attractions, areas of new development),
- adaptations of the parking solutions depending on their impact on the functioning of the adjacent road network,
- development of the system informing drivers about the availability of spaces in multi-storey car parks and in Park&Ride zones,
- permission to park buses and trucks only in designated places (Uchwała nr XLVIII/1169/13..., p. 10).

When analysing the provisions of Wroclaw mobility policy regarding parking, it should be emphasized that it is not planned to develop new solutions for existing housing estates. The city authorities only signal their interference to newly constructed buildings. A universal provision that could also refer to the improvement of parking situation in the area of existing multi-family housing is the point referring to encouraging divers to make short stops, but in practice it has little use. A characteristic feature of these parking spaces is the fact that they fill up in the afternoon until the morning of the next day.

In its budget for 2019, Wroclaw planned around 930 million PLN for tasks related to transport and communication. This represents around 20% of the entire budget of the entity (Budżet Wrocławia, n.d.). After education, it is the second most financially supported sector, yet it is far from perfect. It requires constant modification and reorganization. The development of transport in urban space is a dynamic phenomenon. It always can, and should, be improved. It should not be forgotten that the involvement of the local community is of great importance in its creation.

Today, changes related to transport are introduced based on spatial and transport policy. This is a big challenge due to the following barriers: financial, institutional, instrumental, political, legal, social and above all resulting from existing spatial development (Malasek, 2011, pp. 16-17).

6. The interventions of Municipal Police in Wroclaw

The Municipal Police is responsible for removing unused cars in Wroclaw. The studied data are available in annual record of results of activities, which is published in the Public Information Bulletin. The data from 2010 to 2018 are subject to analysis. They present the number of interventions of municipal police officers, the result of which was the removal of vehicles from the road, with details of which article of Road Traffic Law was enforced. Simple statistical methods were used to present these phenomena. Then, based on them, the distribution and changes were analysed over time, which allowed to perceive their regularity.

Over the past few years, the Municipal Police has recorded a tendency to increase the number of interventions for removing vehicles from the road in accordance with Article 50a of Road Traffic Law (Figure 5). In 2010-2013, the number of interventions fluctuated around 60. In 2014, there was a doubling of actions taken on vehicles without licence plates or whose status indicates that they may be unused, while in 2015 the intervention rate from this area dropped by 10. In the period 2016-2018 there was a gradual increase in activities of the Municipal Police in the context of the research idea. In 2016 approximately 250 interventions were undertaken, while in 2018 this was around 370. During the analysed period the number of actions regarding unused vehicles increased six times.

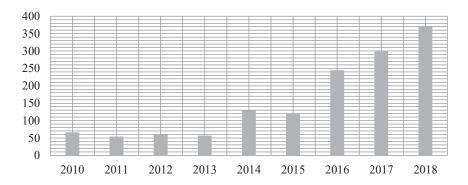


Fig. 5. The vehicles removed from the road by article 50a of Road Traffic Law in Wroclaw in 2010-2018 Source: own work based on data from (BIP, n.d., c).

In Wroclaw, Municipal Police interventions are much more frequent under Article 130a of Road Traffic Law. This presents a summary of the number of actions taken by the municipal police officers with a breakdown based on which article the intervention was made under (Figure 6). Based on the collected data for 2010-2018, no clear trend can be defined. In 2010-2012, the number of vehicles removed from the roads was in the range of 3.5 to 4 thousand. In 2013 there was a sudden decrease in the activity of municipal police officers in the study area to approximately 2150 cases, and remained at a lower level along with slight deviations within 500 items until 2018, when the number of interventions returned to the state from the initial studied period at around 3900.

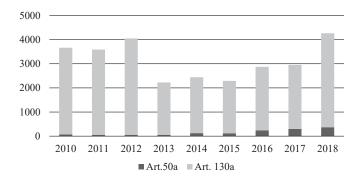


Fig. 6. Vehicles removed from the road by articles 50a and 130a of Road Traffic Law in Wroclaw from 2010 to 2018

Source: own work based on data from (BIP, n.d., c).

Over the period 2010-2018, the number of actions taken by the competent authorities based on the applicable provision of the Road Traffic Law in article 50a and 130a increased. This is a positive premise, but one should bear in mind the large disparities within these two categories. Interventions related to unused cars that block valuable parking spaces are a marginal percentage of the total number of vehicles removed from the public roads. An indispensable element to improve the situation is the increase of public awareness, but in order for it to be effective it is necessary to know the opinion of inhabitants and people staying in Wroclaw.

7. The opinion of the local community

An important element of the article is a survey conducted among Internet users, which allowed to access the state of knowledge of the respondents about the rights and obligations that arise from Road Traffic Law. This was carried out from 5 to 15 December 2019.

The overall goal of the survey was to determine whether the public perceives the problem of unused vehicles in the city parking. The research consisted of 21 questions, was conducted using a Google form and shared on local social groups on Facebook. Due to the form of the survey, the target group were people younger than 45 years old; 217 respondents took part in the study, of which 117 admitted that they travelled to Wroclaw by car.

The respondents' particulars were the first part of the survey. Based on this, it was established that about 80% of respondents were women. The most active age group were people between 19 and 24 years old (approximately 60%) and 25-30 (approximately 27%). The highest percentage of respondents received higher education (56%) and secondary education (38%). Nearly 55% of the respondents declared that they reside in Wroclaw, and 78% live in multi-family housing.

The next question addressed the respondents who use cars in Wroclaw. An affirmative answer was given by 117 people, which constituted 54% of the respondents. In the case of not using passenger cars in Wroclaw, four questions were omitted, which concerned the specifics of travelling in Wroclaw by car. The first question determined the frequency of using the car, half of the respondents answered that they do it everyday, 19% several times a week and 18% several times a month, while 47% of respondents admit that they most often travel in a passenger car occupied by 2 people, while as many as 44% drive alone. An important element in the context of the study of the abandoned or unused cars in city parking lots was obtaining information on how many respondents do not have their own parking place provided. Nearly 71% of people confirmed it, while around 32.5% responded that they often had problems finding a parking space near their place of residence, and about 24% had moderate difficulties.

The next question again concerned all the respondents, 75.6% of whom said that they saw unused cars in housing estates. For people who do not notice the studied problem, the survey ended here. The answers regarding the frequency of observation of this phenomenon have a similar percentage distribution in the case of four statements, respectively: often, moderately, rarely, very often, however, it should be emphasized that only 2% of respondents said that this happens only very rarely (Figure 7).

In addition, around 66% of respondents believe that unused cars are a very big or big problem, and 11% believe that this is not a significant problem. Another issue raised was to identify the most dangerous group of unused cars. Approximately 63% of respondents considered them to be overexploited and obsolete cars (Figure 8). The respondents the most often argued that:

- they block parking spaces,
- adversely affect the aesthetic value for the environment,
- have a negative impact on the environment,
- owners try to avoid scrapping costs,
- constitute the largest group of the vehicles,
- are in the immediate vicinity of the respondents,

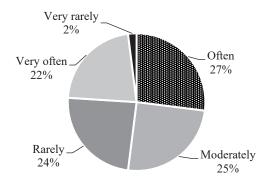


Fig. 7. The frequency of noticing unused cars on the parking in nearby residentials in Wroclaw Source: own work based on survey.

- they act as a storage facility,
- stay in parking places for the very long time.

The indicated responses confirm that the respondents consider the phenomenon of unused cars as a complex problem that concerns various levels. The respondents identified both the basic problem, which is blocking parking spaces that could be used by vehicles in working condition, and a negative impact on aesthetic values – disruption of spatial order, threat to the environment and space misappropriation such as storage of private items in those vehicles.

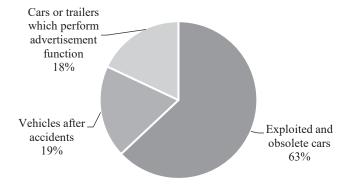


Fig. 8. The most problematic categories of unused cars

Source: own work based on survey.

Nearly 84% of respondents are aware that a private person can intervene in the matter of unused vehicles, although only 16% made such a report. The vast majority of respondents correctly identify the authorities responsible for interventions in the case of unused cars, indicating the municipal police or police. Individual respondents

incorrectly indicate city councils, city road authorities or housing communities. The most frequently cited reasons for abandoning cars are: ease of resolution, laziness, lack of consistency, desire to avoid incurring financial costs associated with disposal, ignorance of what to do with such a vehicle, death or illness of the owner of the car. In the case of financial penalties, according to respondents the most effective solutions that could discourage vehicle owners from abandoning them are: high financial penalties, towing away at the owner's expense, free disposal or co-financing of car scrapping, more frequent inspections, the need to report what happens to the vehicle, e.g. 6 months from the expiry of liability insurance, limits on parking places per apartment. The lack of intervention is explained by the respondents: they do not want to make problems, be involved in the case, laziness, lack of knowledge on how to report, the conviction that the relevant services will downplay the problem, have other parking spaces or "make life difficult for other".

Most of society are aware that they have a real impact on reporting unused vehicles which are left in parking lots near housing estates, but they give tacit consent on this, explaining that they do not want to "waste time" or "complicate the situation". The respondents know that they have such a possibility, but they often do not know in which situations to do it, therefore they are discouraged due to the lack of reaction of public services. Many people emphasize that they do not know what such a report should look like formally.

8. Conclusion

Solving the problem of the shortage of parking places in the cities is a long-term process. It should be based on strategic planning, which takes into account various aspects, for example: financial, environmental, spatial, functional. The biggest challenge is the limited number of parking places in the existing multi-family housing estates due to significant percentage of space being developed and the small possibility of interference and changes.

A parking infrastructure not adapted to the needs of residents results from the dynamic increase in the automotive index, i.e. car use. Over the last dozen or so years, the requirements of local spatial development plans regarding the number of parking places per apartment have changed, but the number of spaces allocated to previously built housing estates is definitely not enough. The increased number of cars leads to the use of recreational areas, playgrounds, playing fields, squares and green areas for parking purposes.

In summing up, it is desirable to once more recall the research question posed in the introduction. The phenomenon of unused passenger cars has its negative effects in the form of:

- 1) reducing the efficiency of existing transport infrastructure,
- 2) degradation of green areas,

- 3) misappropriation of public space,
- 4) distorted spatial order,
- 5) reduction in the functionality of the areas,
- 6) deterioration of the conditions of residents' quality of life.

Regarding the issue of too many cars and insufficient parking places, society should rationally use the available resources. A lot of space in this article was devoted to showing how the situation can be resolved and how one can intervene, but it is worth noting that the problem can be solved by making people who leave such unused cars in public parking lots aware of it. It is necessary to change the belief existing in the public consciousness that public space can be treated as private.

It should be noted that the processing for reporting unused vehicles is simple and requires only a small amount of time, notifying the competent authorities of the location of such vehicle and the estimated time of retention.

Currently, the cost of removing vehicles is the responsibility of the owners, yet increasing financial penalties will not reduce the scale of the problem because it is not always possible to identify the person responsible. According to the author, the situation may be improved by the need to submit a statement or report on what happens to a vehicle when no civil liability insurance premiums are paid for this vehicle for half a year or a technical inspection was not carried out.

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