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STUDIES ON CURRENT HOUSING CONDITIONS IN POLAND: URBAN SCALE AND COMMONLY USED AREAS ATTRIBUTES IN HOUSING ESTATES

ŚRODOWISKO MIESZKANIOWE W POLSCE. STANDARD ROZWIĄZAŃ URBANISTYCZNYCH I ARCHITEKTONICZNYCH W BUDYNKU, ZESPOLE MIESZKANIOWYM I W JEGO OTOCZENIU W ŚWIETLE BADAŃ

Abstract

Urbanization taking place in Poland in the second half of the twentieth century was characterized by high dynamics. The development of residential architecture in the years 1945–1989 should be considered in the strict context of the Polish former economic system, which determined the framework for the development of the country. Due to the political transformation that occurred in 1989, Polish architecture preceded to then opened up new opportunities for residential development. The aim of the paper is to present contemporary housing conditions in Poland. The housing environment can be separated into three areas each based the relationship between the space and its user. In the first is the urban scale attribute of the public space in the housing estate (complex). The second the semi-public space character at the neighborhood level; and the third is the private space being the interior of the flat where the inhabitants have greatest ability to change. The paper focuses on the urban scale attributes of the housing environment and the quality of commonly used areas within the building.

Keywords: housing environment, housing standard, attributes of the residential standard, urban quality

Streszczenie

Proces urbanizacji, mający miejsce w II poł. XX w., miał dynamiczny charakter. Powstała w tamtym okresie zabudowę mieszkaniową należy traktować w ścisłym kontekście systemu ustrojowego, który określał reguły ekonomiczne i negatywnie wpływał na tempo rozwoju kraju. Transformacja ustrojowa rozpoczęta w roku 1989 sprawiła, że zmieniły się warunki ekonomiczne, techniczne i przestrzenne określające warunki zamieszkiwania. Celem artykułu jest prezentacja wybranych elementów środowiska mieszkaniowego w Polsce. Na jego atrakcyjność dla użytkownika składa się konglomerat cech związanych z lokalizacją, standardem rozwiązań architektonicznych i urbanistycznych budynku oraz jego otoczenia, standardem i rozplanowaniem mieszkania. Przedmiotem rozważań w niniejszym artykule jest ocena urbanistycznych atrybutów środowiska mieszkaniowego, w tym szczególnie jakości przestrzeni półprywatnej i półpublicznej

Słowa kluczowe: środowisko mieszkaniowe, standard mieszkaniowy, cechy standardu mieszkaniowego, jakość otoczenia urbanistycznego

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1. Introduction

The purpose of this paper is to examine housing conditions and preferences in Poland. A questionnaire survey was undertaken in 2011 for 1 selected Polish towns. Four categories of towns were identified for this research: first is Warsaw the country's capital, which has a higher standard of living than any other cities in Poland. The second category includes big towns (above 500 thousands inhabitants) represented by Wrocław and Kraków. These cities have recorded strong development trends and have favourable economic prospects for the future¹. Third are medium sized cities that have not experienced the same growth rates as the larger cities. They, nevertheless, offer a good accessibility to services and have good investment potential. The final category is the Katowice agglomeration, being the largest post-industrial region in Poland (population of 6 million), which currently struggles with many local economic, social and spatial problems. The concentration of the labour market in this region, however, is attractive for new investment opportunities that will potentially lead to the future development. The above selection of towns and regions in above mentioned survey allows the collation of data sets with accurate economic, social and spatial information providing the basis for measurement of housing conditions and preference characteristics.

2. Studies on the current housing conditions – objectives and methods

A flat (a single-family house) is a complex product, satisfying the whole range of interrelated needs². Its characteristics may be divided into three categories:

- attributes of the location,
- attributes of standards of urban and architectural solutions of the building, housing complex and the surroundings,
- layout and standard of the flat.

The attributes of the location describe the accessibility of selected services, which are most important in respect of the functioning of households and the qualities associated with the image of the district and social relations in the housing environment (Table 1). The described location attributes in correlation with the place of occupancy³ enable the classification of the types of urbanized space in Poland.

Another important group of the attributes determining the standard of the flat are its spatial qualities, technical and aesthetic features of the building (housing complex) and its direct surroundings which have a great influence on the quality of living: physical comfort, aesthetic perception, sense of safety and social bonds, ecology (Table 2). Research into this

¹ Three selected big Polish cities chosen for research are on the top of the list of towns with the highest rate of convergence and they absorb the highest percentage of foreign investment.

² P. Vajiranivesa, *Housing demand Model: System Dynamics Approach*, VDM Verlag Dr. Mueller, Saarbrücken 2010, 101.

³ The term "place of occupancy" is understood as the information about the type of the building (detached, semi detached, multi-family), the period of its construction (tenement house constructed before 1939, building dating back to the 1940s–1960s, and after 1990), the number of floors (up to five floors, above five floors).

group of the standard attributes makes it possible to describe the acceptance of settlements by Polish inhabitants and the relations among different types of space: private, semi-private, semi-public, public and basic forms of the spatial order⁴.

Table 1

Location attributes of a house/flat essential for the assessment of the standard of occupancy

Category		Facility
1.	1	School, kindergarten
	2	Clinic, pharmacy
	3	Cinema, cultural house
	4	Local Stores
	5	Shopping gallery
	6	Recreational areas
	7	Sports facilities
	8	Public transport stops
	9	Access to the main road
2.	10	Recognizable and easily identifiable neighbourhood
3.	11	Attractiveness and image of the district
4.	12	Residential access to common areas (gardens, open space) within the estate

(Source: elaborated by the author)

Table 2

Attributes of the standards of urban and architectural solutions of the building, housing complex and the surroundings

Category	Attributes
1.	Building quality: Technology, materials – exterior and interior
2.	Driveway to the building
3.	Garages and parking for residents and visitors
4.	Functionality of the entrance, staircase, corridors, elevators
5.	Aesthetics: Colors and materials of entrance, staircase, elevator
6.	Building/neighborhood facilities: swimming pool, fitness center, sauna
7.	Sunlight
8.	Ventilation
9.	Energy efficiency
10.	Sense of privacy
11.	Neighbourly relationships
12.	Safety and security

(Source: elaborated by the author)

⁴ B. Jałowicki, M.S. Szczepański, *Miasto i przestrzeń w perspektywie socjologicznej (City and space in the sociological perspective)*, SCHOLAR Publishing House, Warszawa 2002, 363-363.

Important element of the studies on the standards of occupancy is the determination of the architectural attributes of the housing space: its size and proportions, functional layout, comfort, in a broad meaning of this concept, provided by appropriate technical and technological solutions (Table 3). A subjective assessment of these attributes of the occupancy space broadens the knowledge of life styles, cultural conditions of the occupants and relations between the psychographic features of the occupants and the perception of the occupancy space.

Table 3

Attributes of the architectural solutions of the flat

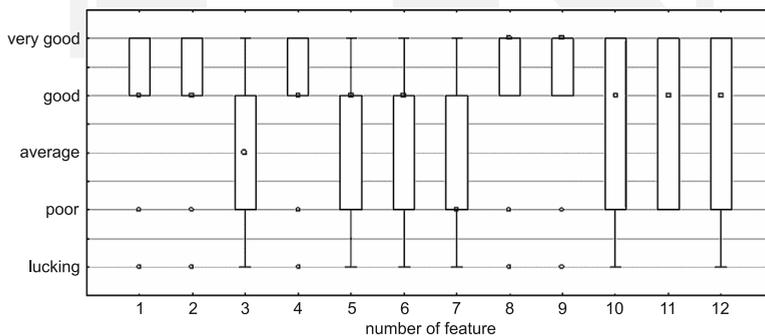
Category	Attributes	
1.	Functionality – usability and efficiency	
2.	Size of dwelling	
3.	Wall height	
4.	Daylight illumination	Living rooms
5.		Kitchen
6.	Thermal comfort of the home – heating, ventilation, air conditioning	
7.	Acoustic insulation: Quiet and comfortable flats	
8.	Good design and quality of equipment and materials	

(Source: elaborated by the author)

Studies on the standards of occupancy of Polish people, and subjective assessment of their housing environment, mark a starting point for devising current models of housing.

3. Accessibility to community facilities and attractiveness of the place of residence

A list of the community facilities was presented to the respondents relating to accessibility for evaluating services most important from the viewpoint of the functionality of the housing environment and user satisfaction. Analysis of the survey results show that the respondents in general are satisfied with access to chosen facilities in their place of living (Ill. 1).



Ill. 1. Assessment of the accessibility to community facilities and attractiveness of the place of residence (Legend: see Table 1)

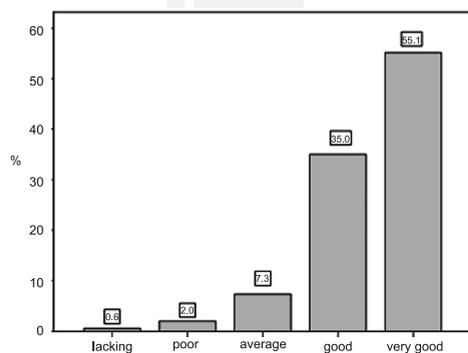
Table 4

Assessment of the accessibility to community facilities and attractiveness of the place of residence

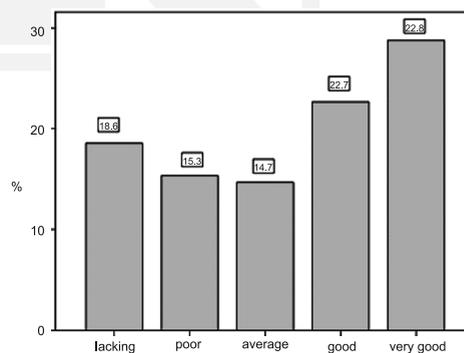
Category		Facility		Assessment of the accessibility				
				very good	good	average	poor	lacking
1.	1	Accessibility	School, kindergarten	46.8	34.4	14.0	3.9	0.9
	2		Clinic, pharmacy	45.2	36.1	13.6	3.4	1.7
	3		Cinema, cultural house	17.7	26.9	26.9	16.0	12.6
	4		Local Stores	49.4	32.8	11.7	4.0	2.1
	5		Shopping gallery	24.4	28.8	23.7	12.6	10.6
	6		Recreational areas	24.4	28.1	24.8	14.3	8.3
	7		Sports facilities	17.4	30.6	26.9	15.0	10.1
	8		Public transport stops	51.0	34.8	9.2	3.7	1.3
	9		Access to the main road	55.1	35.0	7.3	2.0	0.6
2.	10	Recognizable and easily identifiable neighbourhood	27.9	39.7	22.2	8.3	1.9	
3.	11	Attractiveness and image of the district	27.1	34.1	25.6	13.2	0.0	
4.	12	Residential access to common areas (gardens, open space) within the estate	29.0	23.0	15.0	15.0	19.0	

(Source: elaborated by the author)

Accessibility to school, kindergarten, local stores and medical services also rated highly in respondent opinions. Accessibility was better in housing estates and city centres than in single-family house areas.



III. 2. Access to the main road



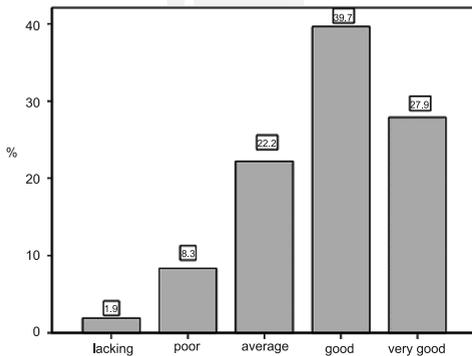
III. 3. Residential access to common areas (garden, open space) within the estate

Evaluation of the access to main road and public transport stops was rated very good by 90,1% of respondents (Ill. 2). The level of satisfaction, however, depended on the type of building. The occupants of the multi-family houses in city centres have the best access to roads and public transport stops for all buildingtypes. Accessibility was not surprisingly better for multi-family house respondents than their counterparts who live in the new estates especially those situated on the city outskirts (Access to main roads and public transport stops was rated good or average).

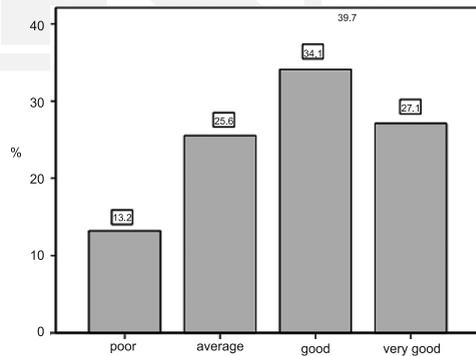
Respondents saw shopping galleries as being easily approachable. This indicates the number of these facilities that have been constructed over last 20 years at the neighbourhood level of housing estate in the cities. The same satisfaction level relating to availability of recreational areas was indicated by the respondents. They unanimously graded categories 1, 2, 4, 8 and 9 very highly with a narrow range opinions. The highest diversity of opinions was found in categories 3, 7, 10 and 12. The uniform distribution of ratings was found category 12 (residential access to common areas within the estate, Ill. 3).

The survey shows that opinions relating to sporting and cultural facilities are more diverse than in the other categories, indicating an average level of availability. This is because these types of services are usually situated in a city or district centre, which makes access to them variable depending on the actual location of the dwelling to the cultural or sporting facility. Availability of gardens and open space within housing estates is variable as well. The satisfaction level for multi-family house occupants (1945–1970 and after 1990) was assed a good or less than good. In sharp contrast, those occupying single-family houses (before and after 1990) assess the access to the common areas as very good.

Respondents were also asked to present their opinions on the attractiveness and the image of their district and the characteristics of the neighbourhood. Similar percentage distributions of grades relates to these categories. Most of the respondents assessed both the image of the district and the quality of the neighbourhood as very good or good (respectively: 61,2% and 67,6% of listed categories, Ill. 4, 5). It can be concluded that the attractiveness of the district and its image correspond closely with the social quality of the housing estate.



Ill. 4. Recognizable and easily identifiable neighbourhood

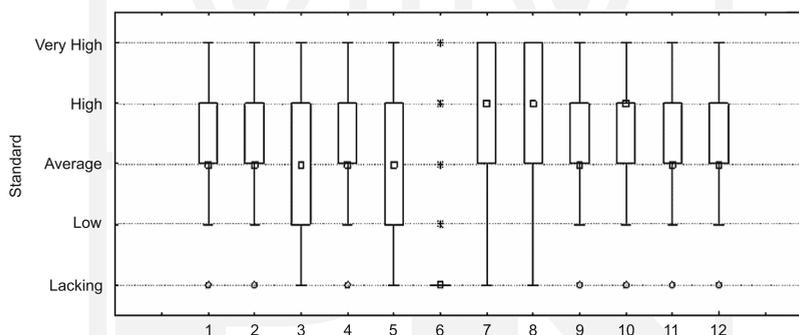


Ill. 5. Attractiveness and image of the district

There is no correlation between ‘easy recognition and identification of the neighbourhood’ and ‘residential building type’. The assessment of the image of the district by owners of single-family houses depended on the time the house was constructed. In the category of houses built after 1990 the rating is very good. And for houses built before 1990 the rating is good. In the new housing estates (after 1990) the occupants have a better image of their neighbourhood than the occupants of multi-family buildings constructed between 1945–1970.

4. Existing architectural and urban design quality of the buildings, neighbourhood and surrounding area

The requirements concerning the functional program, equipment, and location of a flat depend on a variety of conditions, including, first and foremost, the natural conditions: climate, physiographic conditions, environmental conditions, available construction materials. Another group includes subjective factors, such as preferences of human beings in relation to the level of civilization, to the level of culture, and to the surroundings. Flats should provide both physical protection (against the climate and adverse impact of humans and animals) and moral protection (against the interference into the life of the family and its particular members)⁵. The elements chosen for the assessment presented in the paper are strictly related to the above mentioned requirements.



III. 6. Assessment of existing quality of the building and surrounding area (Legend: see Table 2)

In relation to urban design quality of their housing estates, respondents indicated good or average quality of vehicular traffic solutions. The growing number of cars, lack of underground parking and relatively high density of buildings create land use conflicts within these contemporary housing complexes. From this viewpoint, it is easy to understand the number of inhabitants who are only partially satisfied or totally dissatisfied with the vehicular traffic solutions in their housing environments (III. 7, 8).

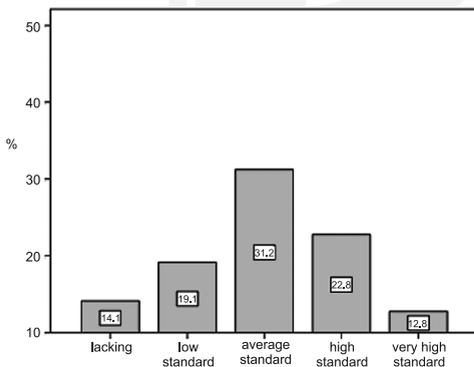
⁵ J. Cibis, W. Olejko, *Preferencje standardu i form przyszłej zabudowy mieszkaniowej (Preferences of standards and forms of future housing architecture)*, [in:] Zaniewska H., Tokajuk A. (ed.), *Tendencje w kształtowaniu zabudowy mieszkaniowej współczesnych miast (Trends of shaping housing settlements in modern cities)*, Faculty of Architecture, Białystok 2006, 229.

Table 5

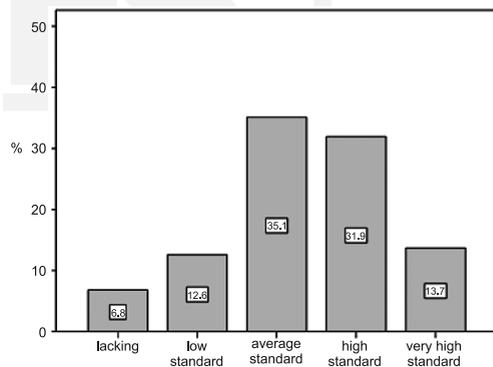
Assessment of existing quality of the building and surrounding area

Category	Attributes	Standard				
		Very high standard	High	Average	Poor	Lacking
1.	Building quality: Technology, materials – exterior and interior	8.9	26.4	44.7	19.4	0.6
2.	Driveway to the building	13.7	31.9	35.1	12.6	6.8
3.	Garages and parking for residents and visitors	12.8	22.8	31.2	19.1	14.1
4.	Functionality of the entrance, staircase, corridors, elevators	12.8	36.0	36.3	11.6	3.3
5.	Aesthetics: Colors and materials of entrance, staircase, elevator	12.1	26.3	33.4	24.9	3.2
6.	Building/neighborhood facilities: swimming pool, fitness center, sauna	2.1	3.4	7.2	6.1	81.1
7.	Sunlight	29.3	41.4	22.2	6.3	0.7
8.	Ventilation	27.0	44.8	20.8	7.2	0.2
9.	Energy efficiency	11.0	28.8	39.9	17.8	2.6
10.	Sense of privacy	21.9	35.8	28.2	11.1	3.0
11.	Neighbourly relationships	14.6	30.7	30.9	16.3	7.6
12.	Safety and security	17.1	32.2	28.9	15.6	6.2

(Source: elaborated by the author)



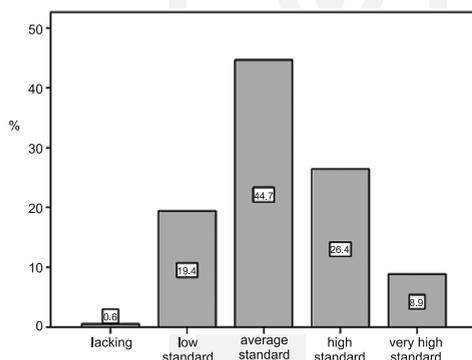
III. 7. Assessment of garages and parking for residents and visitors in the housing complex



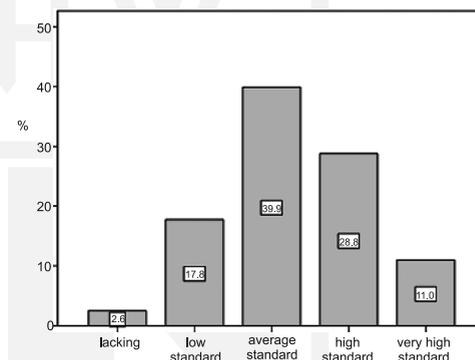
III. 8. Assessment of the driveway to the building

Several questions related to the architecture of the common areas of the building, namely – functionality, technical and technological solutions, energy efficiency and visual appearance. The standard of these categories have generally been assessed as average. Respondents in most cases appreciate the functionality of the common areas of the building (entrance, staircase, corridors, elevators) and for 85% of the survey respondents the design, technical standard and finish of the common areas in the building is at least average. The level of technical and technological solutions is also appreciated. About 10% of the respondents graded this aspect of building quality as very good and for 71% of inhabitants the standard of technology and the materials used in the building is rated as good or average (Ill. 9). Around 39,8% of the respondents indicated a very high and high standard of energy efficiency in the building. But significantly about 20% of respondents evaluated this element of sustainability as very bad, low or lacking (Ill. 10). It can be seen, however, that the new materials and technologies in the building design have resulted in pleasing aesthetics and in energy efficient solutions. In opinion of 38,4% of occupants, the visual appearance of the common areas is a very high standard. By contrast, 28,1% of respondents evaluate visual appearance negatively (low standard).

The greatest range of very satisfied respondents can be found in the assessment of sunlight and ventilation. In this part of the survey these attributes are related to the building, and to the dwelling assessment. Respondent opinions related to these two characteristics are highest in all the selected categories, but also the most variable.

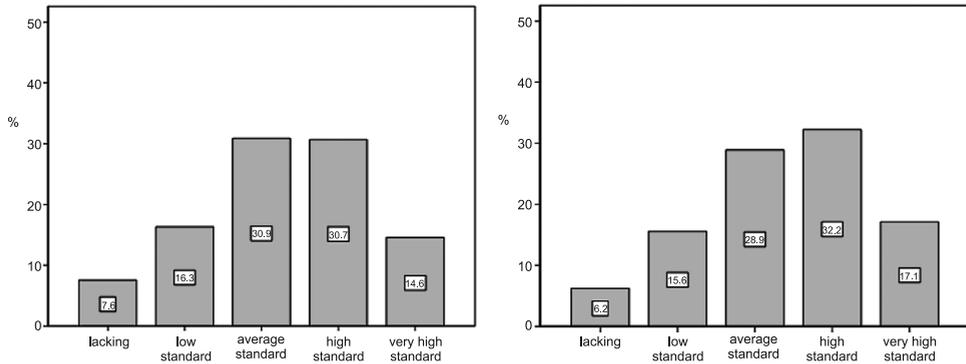


Ill. 9. Assessment of the building quality: Technology, materials – exterior and interior



Ill. 10. Energy efficiency evaluation

The respondents were also asked to evaluate the social attributes of their dwellings (categories 10, 11, 12). For 57,7% of the occupants, the sense of privacy is very satisfying being rated very high, high and standard. Close correlations can be observed among the sense of privacy, neighbourly relationships, safety and security. These latter two categories have been graded very positively, too (Ill. 11, 12). What is interesting here is the similarity of the responses within each category. This shows that occupants in the contemporary housing estates appreciate the interpersonal relationships in the neighbourhood and perceive them as a the significant component of safety.



III. 11. Assessment of neighbourly relationships III. 12. Safety and security evaluation

The research shows that occupants do not have the access to the facilities such as swimming pools, fitness centers or saunas in the housing complexes and in the local neighborhood. There are very few housing complexes offering such services.

Respondent's opinions in relation to accessibility to community facilities and the attractiveness of the place of residence are rated higher than the their assessment of the quality of the building and its surrounding area.

5. Conclusions

The housing environment can be described as a place where one lives and meets others and achieves both individual ambitions and social needs. This mean it must provide for physical, mental and social comfort as well as opportunities for personal development and life satisfaction. A housing environment can also be viewed from several viewpoints such as a residential complex, a housing estate, a spatial arrangement (layout) of the dwelling and it's neighborhood or the entire city. What is important to any housing environment, however, is that its functional, technical, environmental, aesthetic and social elements must be maximised to satisfy the user.

Housing environment can be described by many various characteristics referred to all the levels of housing needs. To assess the living standard it is necessary to know the choice of the features of flat (house) and its surrounding which are the most important for the users. Such method was implemented in the survey, the results were presented in the paper.

Inhabitants of Polish cities assess positively their housing environment. They appreciate both location attributes of a house/flat and the standards of urban and architectural solutions of the building and its surroundings. The diversity of building types in Polish cities creates only small differences in the evaluation by respondents of the survey. Knowledge of the level of acceptance of existing housing environment can help the designers – urban planners and architects to design high quality housing estates and complexes in the future.

References

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