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## URBAN HOUSING UNDER THE CIRCUMSTANCES

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### UWARUNKOWANIA MIEJSKIEJ ARCHITEKTURY MIESZKANIOWEJ

#### Abstract

*Dweller needs* denote the so-called habitation comfort (i.e. becoming independent of climate and the elements) as well as privacy, safety, a feeling of freedom and identification with the place of living. *Urban location* is a man-made setting, which dominates a natural one. That results in the heat island effect, noise-generating traffic, the low emission. A danger of smog appears. To generalise, *home proximity* can be resolved into the housing typology and characterisation of the urban fabric—ranging from a positive one (by street building) to a negative (consisting of detached objects). *Standard* evolves, hence actions to rejuvenate the historic fabric and rehabilitate the modernist housing estates. The compass of the present standard exceeds basic requirements (related to acoustic issues, insolation, view obscuring).

*Keywords:* *dweller needs; town, city–urban region; housing types–urban fabric; home standard*

#### Streszczenie

Uwarunkowania miejskiej architektury mieszkaniowej pogrupowano pod wyróżnionymi sztyldami. *Potrzeby* użytkownika mieszkania to komfort środowiskowy—niezależnienie się od klimatu i jego żywiołów. To także prywatność, bezpieczeństwo, poczucie swobody, identyfikacja z miejscem zamieszkania. *Lokalizacja miejska* (w strefie zurbanizowanej), jest środowiskiem, w którym kultura dominuje nad naturą. Skutkuje to wyspami ciepła, natężeniem ruchu komunikacyjnego generującego hałas, niską emisją. Pojawia się zagrożenie smogiem. *Bliskie otoczenie* mieszkania, generalizując można sprowadzić do typologii zabudowy i charakterystyki tkanki miejskiej—rozpiętej pomiędzy przyuliczną, pozytywową oraz złożoną z obiektów wolno stojących, negatywową. *Standard* ewoluje. Stąd akcje rewitalizacyjne historycznej tkanki i rehabilitacje osiedli modernistycznych. Zakres obecnego standardu

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wykracza poza wymagania podstawowe (odnoszące się do zagadnień akustycznych, nasłonecznienia, przesłaniania...).

*Słowa kluczowe: potrzeby mieszkańca; miasto–region zurbanizowany; typy miejskiej zabudowy mieszkaniowej–tkanka miejska; standard mieszkaniowy*

The complex matter of urban home is outlined under numbered titles in bold. The sections contextualise differently the quality of the housing environment. The aspects of the dweller home needs (I) and standards indispensable to address them (IV)—are taken into consideration. (IV). Equally, the previously cited quality is conditioned by immediate home surroundings (III), as well as on the urban macro-scale, the character of its fabric (II).

**I. Dweller needs** concerning the place of living can be wide in outlook, or be focused on more particular wishes, referring to the home and its surroundings in the strict sense. The wide outlook, in the urban context, means reflection on such a lifestyle. Does it influence, and how, everyday activity; what threats it makes, what offers? Town, city—urban region in general, provide diversity, freedom, anonymity. Freedom and anonymity, paradoxically, depend on each other—they are a result of releasing from limitations, caused by both the space and social narrowness. Having many neighbours; their and our own engagement outside the place of living—results in more anonymity. Individual activity is stimulated by a rapid pace of life. In parallel, we are becoming members of a big, significant community. Diversity can be seen from many aspects. One can point to a wide choice of places of employment. Basic facilities are essential in the same way, their proximity both in a place of living and employment. An offer for dweller leisure time is great; it includes, passive and active, participation in cultural, sports...events.

Expectations of a home, regardless of its localisation, are not significantly different—if at all. It is real not only for town-village duality, but also, to more and more degree, geography. Progressive globalisation is not to no effect on any human being. One is growing to resemble each other. Taking the abovementioned expectations into consideration—in broad generalities; it should be pointed to privacy, safety, feeling of freedom and identification with the place of living—above all, as a matter of fact first of all, to habitation comfort. The term, introduced for clarity of the text, means becoming independent from climate and the elements. (The independence from is, besides, the motivation behind architecture and building engineering, taken together—beginning with nature-works adapted to this purpose, to constructed housing and other objects.) The quoted expectations seem to be relevant in the context of different dwellers: single people; nuclear, extended or blended family; also other use-associations arrangements.

Privacy, understood as a withdrawal from the public sphere into a private domain, requires that the latter creates a shelter against undesirable, indirect contact with other people and an outcome of their activities. It requires to be impossible to be watched by outsiders. To prevent various disturbances, such as: aggressive, artificial light; smell penetration; noise, other sounds...Even a likeable piece of music can be upsetting when one is seeking for silence. Emphatic separation from external world, annihilating symptoms of its existence—supports concentration on oneself (and relatives or friends).

Safety means the protection against theft, burglary, physical attack; but likewise against others violent behaviour. Easily noticeable boundary of one's own territory and demonstration of no trespassing can make a warning to potential transgressors. Safety also means elimination of menaces being the cause of health damage, even loss of life, from one's own material surrounding. Falling down, infection caused by contaminated air, a gas explosion, electrocution, fire... can be brought about not only by inappropriate utilisation.

The feeling of freedom comes into prominence when professional activity (and another, realised outside home) consists in mutual human relations and in an inevitability of staying in people conglomerations. In public, one is obliged to comply with social conventions. They are indispensable for being acceptable to the remaining participants. Staying in one's own home is devoid of such external – and self – restrictions. The right to natural statements, functions, behaviour has been acquired – the right unconstrained by presence of others. (And in extreme circumstances – the bans imposed by others, or following their presence.) One feels liberated.

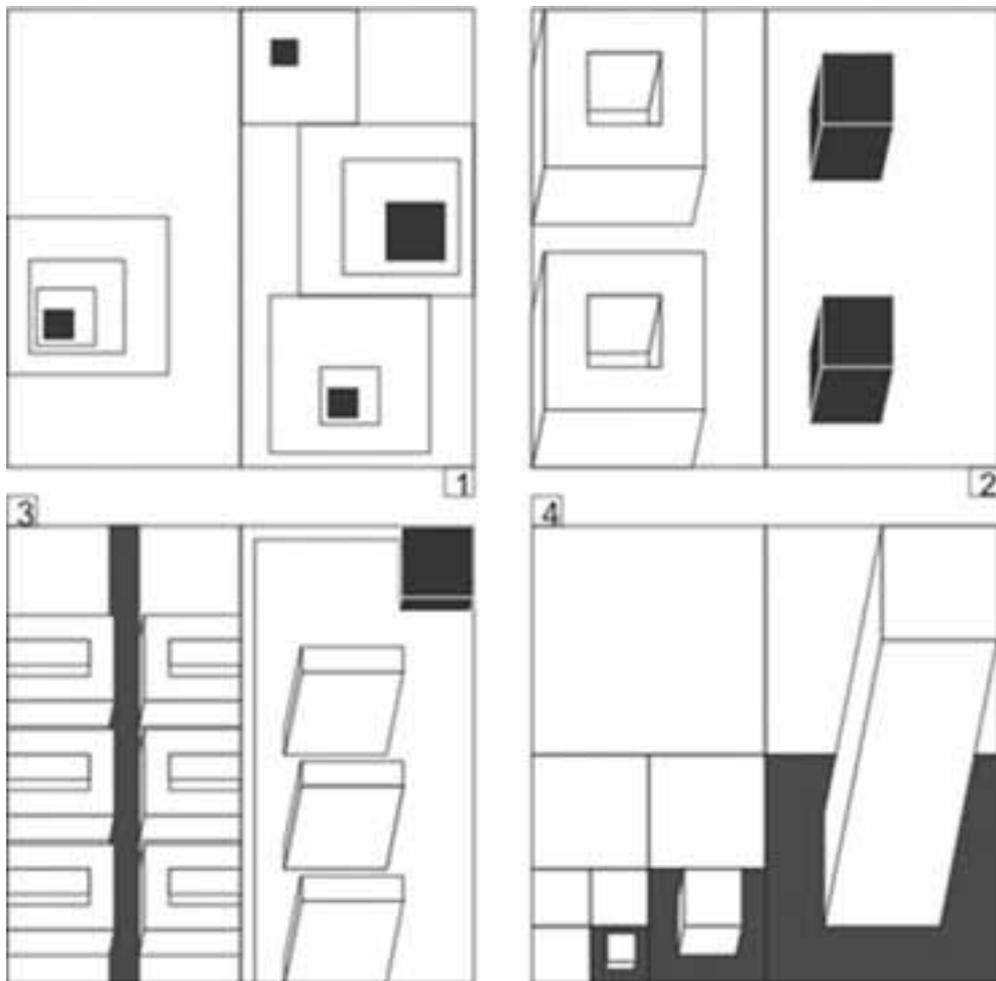
Identification with the place of living goes beyond one's own dwelling. Distinguishing features of the object that a dwelling belongs to are conducive to the identification. Paradoxically, obliteration of semantic differences between objects of different uses increases the number of possibilities to individualise dwelling buildings among themselves. It concerns, especially, the front, accessible to public elevation.

Habitation comfort protects against precipitation; frost and coolness on the one hand, on the other excessive temperature and solar radiation; high winds; atmospheric discharges; over-dry or damp air..., in short, the problematic constituents of current weather outside. In parallel, dwellers' preferences are individualised. What more they are changeable with the passing of time: during twenty-four hours a day, during a week... Different while working, different – holidaying. They also evolve with the passing years of the symbolic dweller. To recapitulate, it is a request for an adaptable atmosphere within the home.

**II. Urban location** creates specific conditions for housing – as against the environment. Location in rural areas is closer to, if not identical with, the latter one. Provided that it is not disturbed by structures as a motorway, waste dump or causing damage a manufacturing plant.

When once a town was surrounded by walls; distinguishing between the urban territory and outside the town, one was readily intelligible and the walls forced a dense building within the whole town area. A social and technological development eliminated such a spatial pattern. The present city limits are administrative in character; they encircle an area under the local authority control. The consequences are twofold. They are different when beyond the limits spread out the natural landscape, or farm buildings; different when a city adjoins another urban territory. [III.1]

In the first case, a wide span of building intensity between a city centre / downtown and the outskirts, can be observed. The intensity gradation accompanies this, as a rule. Detached one-family houses alternated with farm dwelling buildings – in decline, occur on the urban fringe. Rural communes, adjoining a city, change in this direction. The outskirts are also the place where 'old' modernist estates occur. New housing groups are built there – they form kinds of islands. This way – facility buildings: supermarkets, offices, hospitals... are constructed. All they, because of their scale, are in contrast to low density one-family housing. They begin the process of urbanisation.



- III. 1. Town; city / Urban region
- III. 2. Positive fabric / Negative fabric
- III. 3. By street building / Housing estate
- III. 4. One-family house / Multifamily building / Skyscraper

When a city adjoins another one, they tend to intermingle with each other. During a more advanced phase, it concerns a few cities; they mix together in many directions or in the shape of a strip. Differentiation of their space starts to be difficult, at least for a stranger. It resembles division into quarters, within the limits of a city. Thus, an urban region comes into being. Intermingled fringes functionally create housing areas, where facilities are dedicated not exclusively for the locals. Centre / several of them (in a situation of poly-centre urban regions) assembling facilities of a higher level; possibly accompanied by habitable use—are spatially distinguished on their background. It happens that beside an old city, at an indispensable distance from it, decided by city authorities, a new centre develops assembling skyscrapers, dominated by office use. One can compare it with the historic town foundation.

In historic cities, that fabric remained relatively untouched; nowadays, under the conservator of monuments protection, former habitable use is carried on—unless those parts of a city are now in the centre area. Then, the habitable use is being supplanted by facility one, located not only on the ground floor, but also on upper storeys. Post-industrial objects are adapted for another use, dwellings included. Where inherited buildings were / are being replaced; row tenements, the other structures, are supplanted by more intensified developments, not without skyscrapers.

Creation of, for the purpose of the human living conditions, a macro-environment in the place of the natural one induces a visible change in the original state of the latter. The domination of a man-made setting over the natural one may result even in a deformation of weather parameters. This is the heat island effect. The accumulation of buildings and the relatively dense gridiron pattern of streets is the reason of wide areas, which store up and radiate heat. Green and water areas of a city (parks, bystreet trees, green squares...) are not able to contradict the local rise of temperature. It seems that even converting all building roofs into green areas would not be fully efficient either—though it might to alleviate the not desired occurrence. Amassed people in large quantities, volume of traffic (especially that caused by private cars and many means of public transport), and feature of the traffic (necessity for applying of a break frequently)—generate noise. They contribute to air pollution. Resignation from an internal-combustion engine for the benefit of ecological systems; radical change in transportation practices (abandonment of a private car for public transport, or a bicycle...)—seems to be a future idea. Another substantial reason that negatively influences the state of air is low emission. The coal fuel heating, even firewood, is not ecological in the context. The extremities bring about smog.

However, escapes from the cities are not observed. One must admit that there are advocates of removals, especially into communes immediately abutting a city. Owing a house outside a city, in an attractive location is in vogue—the house, most of all, used for leisure and recreation. But, in parallel, there exists a motion in the opposite direction. And, on the global scale, the percentage share of urban inhabitants grows. Many derive satisfaction from the dynamic city life.

**III. Home proximity** depends on the characteristics of the object, that the dwelling forms one of its parts, and in the spatial neighbourhood of the object. The description of spatial structures of a city, realised above, points out that all types of housing occur there. Even farm habitable houses are not the exception—although the type disappears on urbanised territory.

Detached one-family houses are the least urban. However, they also are different in comparison with ones placed on the territory of rural communes. They are denser and more

intense. Sometimes, areas and proportions of their plots are minimal in dimensions—yet it is allowable to use them for housing. Detached one-family houses are accompanied by multi-family ones, also on their own plots; as well as by semi-detached, row or atrium houses. (Though, the last one type does not prove correct to every climate.) The new objects' architecture is often inspired by local, traditional forms. It happens that it is imposed by the law on the spot. Another repeated reason is request for such kind of architecture on the side of investments. Building a home for yourself, on your territory, with your money, in which you plan to reside for the lion's share of your life, if not the whole; seems be enough to feel authorised to have influence on the home architecture. In parallel, there are investors who willingly cede architectural decisions to the designer. It makes an occasion for vanguard projects, marking the development of architecture. Also, lofts join the one-family type. Conversions of former factory (which activity gone out or was removed to the outskirts) for such use; or residences on the last storey of a skyscraper, not only habitable one. Lofts are the creation of urbanised environment. The opinion of a low level of one-family housing urbanity, formulated previously, does not rather concern lofts.

Multifamily, by street, with facilities on the ground floor— a tenement, was one-family, at first. With an owner workshop on the ground level, habitable rooms on upper floors, cellars under the ground. (At first, it means in the times of intense towns foundation; in Poland, it happened in the medieval age.) Many parcelled out streets are not completely build over. Void plots are a desirable location for contemporary housing. Newly build objects, in volume, correspond with the surrounding. Similarly, the use a structure of these architectural fillings, inscribes in historic patters, somewhat—flats on upper floors, retail trade and services on the ground floor, a courtyard behind a building. Somewhat, because differently is planned the underground level; always when habitants garages are placed in there. Planning limitations (a plot width, neighbouring building's height, the roof type, recommendations about front façade colouring...) do not hinder designing valuable, contemporary architecture. Composition decisions, as well as material ones, technological and even installations—serve it. Anyway, such was the practice in historic development; building in accordance with the zeitgeist. Beside gothic tenements were rising renaissance ones, baroque...; answering the style of the epoch, in which were built.

Modernist, detached block of flats (consisting of some staircase segments, alternatively with access to each flat through a gallery or corridor) and also detached tower block, which is suggested by its name—and precisely their groups—radically changed the fabric character. From a positive one to a negative, replacing building by void, and the other way round. [III.2, 3] Blocks of flats and towers were exclusively meant for habitable use, as a rule; with parking spaces / garages for inhabitants on the outer edges of the groups. The blocks happen to be several-, as well as multi-story, served with lifts. No-habitable use occupies separate objects. They consist of commonly accessible commercial-service pavilions, or on their own plots schools, kindergartens... As the years went by, modernist estates were being modified. Their land development is intensified by erecting blocks of flats / towers. Of architecture, similarly, dominated by windows and balconies (loggias) rhythms, yet different.

Multifamily housing groups, actually built, are intermediary forms, finding oneself between a modernist estate and by street, historic fabric. They are designed as not too vast and of individual architecture, which makes the inhabitants identify with. Disturbance made by the transit road transport demands that the groups are isolated from the roads;

either with tall, compact, green ribbons or with acoustic screens. The groups are connected to the transit roads in a cul-de-sac mode. Their own road network marks the lines along which habitable objects are located. They surround, at the same time, a semi-public green area. When the objects touch each other continuously, a closed courtyard is created. The green area is semi-public because it is dedicated, first of all, to the recreation of inhabitants that live around it. Volume objects contain flats in total, or in part. If they serve a commercial-service use too, such is their ground floor. Allocation to all of the ground floors not habitable use—in context of low building, four – five-storey—could lead to facilities' overgrowth. In the basements of habitable objects, garages for inhabitants cars and / or inhabitants cellars are located.

Modernism formed one more pattern for realising habitable needs, Unite d'Habitation ought to be called here. Hyper-multifamily object surrounded by green areas; with pedestrian lane grouping basic facilities, on one of its storey; recreational facilities on the roof space; free ground floor... Unite d'Habitation has been an inspiration, but not so commonly as the modernist estate. However, luxury apartment skyscrapers rise by office ones in city centres. [Fig.4] Groups of dwellings can make a part of an object with some different, considerably equivalent uses.

**IV. Standard** of housing does change. The reasons why new demands are formulated and existed ones sharpened seem to have a source in different causes. There may appear disturbances in the dwelling vicinity as a consequence of changes being the result of social-economic development. The cited development uplifts the general level of life and this draw to rising of expectations towards housing conditions, on the side of inhabitants. Living in close proximity families / use-associations from different cultural backgrounds, can demand decisions levelling potential conflicts. So, the existing housing resources ought to be periodically inspected and their standard updated; and the currently introduced will undergo the treatment in future. There is a replacement of resources alternative; technically or morally worn objects are being demolished and new ones built in their place. (Costs and likely social consequences of such actions should be thoroughly analysed.) Both methods to meet evolving standards will facilitate elastic design propositions: reducing the quantity of bearing, unable to move partitions and replacing demolishing by dismantling.

Areas built-up with by street tenements underwent and undergo to the mentioned changes; this concerns estates from modernism, too. (One-family houses need financial assistance, to some extent.) A multifamily tenement (of descent from pre-industrialisation) received hygienic accommodations within a dwelling, owing to the town sewage disposal. As the type of family (use-associations) had changed, dwellings floor plan became transformed—the second, kitchen entrance into a dwelling and the accommodation for a domestic servant, started to be redundant. Radical changes made by petrol vehicle traffic and by the public rail network along streets (noise, vehicle exhaust emissions) altered the hierarchy of the façade. The one by the courtyard gained importance; at the same time, the courtyard was modified from a work yard into a green recreational space. A by street balcony stopped being in use. (As time went by, a change of the semantics specific to dwelling objects occurred.) The problems done by low emission extort alterations in dwelling heating systems (the solid fuel stoves are interchanged with the gas ones or with the network heat); in parallel, it updates the standard of a dwelling and its vicinity. What's more, within the actions to rejuvenate historic fabric, vast areas are submitted to updating standard activities, they comprise traffic calming, including changing its character.

The history of the modernist estate is much shorter. There, complex endeavours to obtain higher quality, are designated as rehabilitation. The volume objects and open space are rehabilitated—it concerns the program, and technical equipment, and architecture...Thermo-modernisation leaves a trace in the elevation's colouring. The noble modernist white, but monotonous when in excess, is replaced by multi-colouring—distinguishing objects, or their groups between themselves. New facility objects are erected. The inter-block's green is filled with playgrounds, places for sports and recreational activities. The green itself changes, trees planted years ago grew to large dimensions in the meantime. The estate's fringes are supplemented with additional garages. The modernist estate was the answer to disadvantageous (hygienic and health) conditions in excessively dense housing of the towns in their development stage parallel to the Industrial Revolution—today, estates themselves ought to be improved.

One-family housing excluded, the typical of an urban dwelling is the immediate vicinity of some other dwellings. (Sometimes, rooms of no habitable use.) And of many others—through common access area to dwellings (the remaining storeys), through bearing walls, installation shafts... The object that the dwelling is a part of (always for a city / urban region location) is surrounded by other buildings, so it does not have an unlimited view of open scenery. Restricted contact with the environment induced that the urban dwelling is equipped with a balcony (loggia or glass veranda). They also make, especially to a dwelling on an upper storey, foreland before an abyss bellow. The object vicinity (drive, limited parking space, segregated garbage collection) is intensively utilised.

All these have consequences for finding the fulfilment of the dweller's needs, concerning privacy, safety, feeling of freedom, and identification with the place of living. On the whole, they hinder the realisation—an exception is the habitation comfort. Since compacted dwellings can separate from an outside state of weather easier (and cheaper): common roof, some party walls of dwellings, more efficient high winds resistance. In addition, contemporary technologies, regardless of the localisation of a dwelling, enable to create an inside micro-climate, or even control it remotely (using Internet). The micro-climate parameters can be programmed in advance, subordinated to internal sensors and the external weather ones. The devices responsible for the micro-climate can, to some extent, control and regulate each other—it is the so-called self-regulation. Similarly, for the safety matter, monitoring of a dwelling and monitoring it from any place (through Internet) is possible. Returning to the hindrances, the vicinity of other objects makes demands regarding view obscuring from a dwelling's rooms, and a minimal insolation measured at the equinox. The necessity of noise prevention, not only from the outside of a building, but airborne and carried through material's sounds, generated in other dwellings or by common technical equipment (lifts, ventilation...). Additionally, smell problems may be created a gastronomic facility on the ground floor. Absence of a buffer space between balconies, or loggias, can reduce privacy. As a result of the feeling of safety, neighbours in large dwelling aggregations become anonymous.