

Recreation function in the architecture of the apartment buildings (on the example of the historical buildings of Lviv)

Abstract

Various factors and conditions that affect the organisation of architectural environment of entrance groups of public service establishments located on the ground floors of residential buildings are comprehensively reviewed in the article. Available design features and compositional and spatial solutions of various built-in public service establishments that contribute to the solution of problems of aesthetic expression of residential development.

Keywords: entrance groups; built-in public service establishments; compositional and spatial structure

Introduction

A house is the main place of rest. Its size, architecture-planning structure, sanitary-hygienic qualities, colouring influence people's health. The increase of the quality of the house helps to decrease the sickness rate, to improve and strengthen people's mental health.

In Ukraine the structure model function of recreation includes: 1) daily recreation – at home (in single-family houses, flats etc.) or in the places of public services, which are the parts of apartment houses or living complexes structure; 2) occasional recreation – in the city (in the places of public services); 3) temporary recreation (for some days, weeks) – in the resale houses, tertiary houses, in the outskirts of the city (suburban houses, studios, country houses, yachts, recreation camps etc.); 4) seasonal recreation – in the outskirts of the city or region (health-care establishments, tourism). In the present day social-economic circumstances important is the arrangement of recreation environment for the residents as a part of their apartment house structure [5].

The recreation function is based on health-care and recreation activity of its residents. Health-care activity is formed on the basis of everyday living needs of people (physical and psycho-physical): 1) sleep; 2) hygiene; 3) physical activity; 4) ecological-aesthetic needs. Recreation activity is connected with the repletion of moral-intellectual needs of people and is divided into several kinds: 1) cultural and educational; 2) communicative (communication); 3) having festivities; 4) cooking and having meals [3, 5].

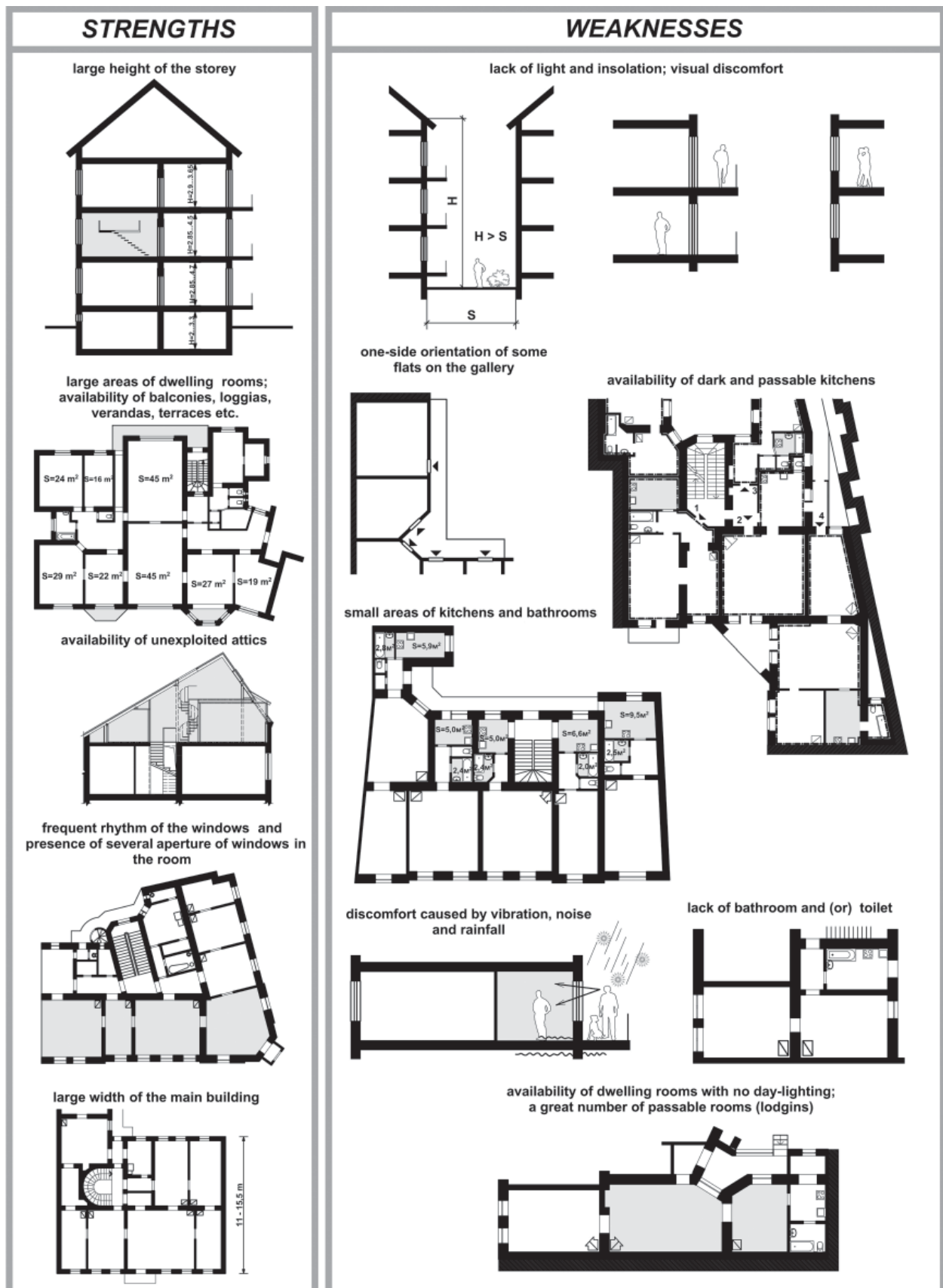
Research & Results

The solving of this problem should take into consideration the architectural peculiarities of the existing buildings. About

3500 blocks of flats built in the period of 1772–1918 are located on territory of Lviv [7]. They are architectural and cultural value of the city and form its historical habitat.

Architectural-planning solution of flats in the apartment buildings of Lviv in the period of 1772–1918 and the level of their comfort depended on the duration of building the house and its location in the general building structure of the city. At the beginning of the 20th century architectural-planning (the nomenclature of utility rooms was increased and the isolated rooms appeared), sanitary-hygienic (the system of water supply and sewerage was accomplished) and constructive solution of blocks of flats were improved [6]. Consequently the recreational facilities in the buildings were extended. The increase of the distance in the location of the building from the center of the city decreased its comfort: the amount of small-sized rooms, the entrance into which was placed from the gallery, was being increased and public lavatories were taken away outside the flats which caused the decrease of recreational zones in the structure of the buildings. The amount of flats, the organization of entrances and space in the flat and also orientation facilities and functional connection between them depended on the location of the flat in the main part of the building or in its wing part. Large-sized flats located in the main part of the buildings had more recre-

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Il. 1. Strengths and weaknesses of architecture-planning structure of the historical apartment buildings in Lviv for the organization of the recreation function. Source: DALO, f. 2, o. 1- 3; Archive inventory of cases LKP; Archive TzOV «INTERLINK», [6]. Composition layout and graphics: Oksana Pekarchuk

ational facilities for inhabitants than small-sized and medium-sized flats located in the wing part of the building.

In the blocks of flats of Lviv in the period of 1772–1918 the total space of one-roomed flats was from 11,3 to 50,7 m², the space of living rooms was from 8,6 to 26,5 m² [6]. The recreational facilities in one-roomed flats were represented by the zones of sleep, cooking and having meals. There used to be flats, in which only the zone of sleep was organized. In one-roomed flats built at the beginning of the 20th century in the central part of the city, the additional hygienical zone was organized (a lavatory and a bathroom).

In two-roomed flats built at the beginning of the 20th century with the total space from 32,0 to 79,1 m² and in the three-roomed flats with the total space from 50,2 to 113,1 m² the recreational facilities were far more developed [6]. The space of the living rooms from 10,7 to 37,6 m², kitchens from 7,7 to 19 m² and functionally planning connections between the rooms gave the inhabitants the possibility of realizing their recreational activities: cultural and educational, communicative. The hygienical zone was more developed in the buildings built at the beginning of the 20th century, when sanitary-hygienic rooms were located inside the flat. The exact division of zones for general and individual usage was characteristic for two- and three- roomed flats.

The designing of multi-room flats (from four to nine rooms) was widely used for building blocks of flats in the period of 1772–1918. Very often the flat of that kind occupied the whole floor and had the space more 100 m². [4, 6, 7] Most of multi-room apartments which had been built before 1900 represented by planning schemes without sanitary units. They have got enfilade planning structures, where all living rooms are passing-by that increases the area of transit zone. These apartments had often got two or three kitchens. It means that dwellers paid a lot of attention to the process of eating, celebrating and communicative activities (communication with relatives, colleagues etc.) at that time the process of cooking had utilitarian character as the dwellers of these apartments employed servants. Only after a lot of years the process of cooking became one of the pastime activities or an interesting hobby.

Multi-room apartments in the buildings built at the beginning of the 20th century with sanitary units have got a wide spectrum of planning decisions. They were situated in the main corp of the building. The living quarters of these apartments had a picturesque view out of the window combined with the perfect organization of the quarters interior satisfied aesthetics dwellers' needs. Architects were differentiating the rooms according to their designation, that is why nomenclature of living and utility quarters was increased. Rooms had different sizes. Among them there are salons, bedrooms, studies and dining rooms the area of which was 30 m² and more, which had two or three windows facing the main street [4, 6, 7]. It means that apartments became the integral part of recreational healthy sphere. Important secular meetings, family parties, cultural and educational meetings (poetry reciting, playing musical instruments, different performances, etc.) took place there. Recreational healthy types were mostly

realized in a combined form and thought over the aesthetics expression of the interior. The high-comfort level apartments which were situated in the main corp of the building had bathrooms and toilets (could be several of them). It shows the increasing of meaning of hygienic zone for tourists. Bathrooms were often situated near bedrooms that allowed to optimize recreational healthy process. For the rest, environment of comfortable multi-apartments, the high quality of conditions, prestige, subtle and aesthetic were distinctive features. The mid-level comfort apartments could have only one bathroom and toilet. It testifies about the connection of quality of equipment of the recreation spaces and the economical component (dwellers' income). The rest in mid-level comfort multi-apartments was based on equal satisfaction of mental and physical dwellers' needs.

The change of architectural-planning structure and recreation function the blocks of flats of Lviv 1772 – 1918 was a natural phenomenon caused by scientific-technical development, moral and physical aging of buildings, changes of standard indexes, social-economic policy. It means that different historical periods the correlation of living dwellers' spheres were changing: the work, rest and way of life. According to analysis of historiographic and own research it was found out that the process block of flats changing was occurring during four periods [6].

In the first period (until 1919) redevelopment of the apartments, the floors of the houses and building the additional objects to the houses were related to the improvement of sanitation and the resettlement of hygiene areas (sanitary units were arranged in the structure of the apartments). The adaptation of the ground floor premises was held for the public function. This allowed the residents to have an active rest outside the apartments, but within the structure of housing.

In the second period (1919–1939) were held the building upon floor space and adaptations of the first floor for a public function and alterations with changing the number of apartments on the floor. Frequent alterations worsened the resting conditions in the apartments (leaving only the kinds of passive resting in the structure of housing). Residents had to have active kinds of resting outside buildings.

In the third period (1939–1991) as the result of overhauls, large rooms were divided into small ones (one-, two- or three- room apart-

ments). Appeared public rooms. As the result of building objects to the house, emerged apartments with a large room with no natural light. Also there were decisions, when sanitary units were built above living rooms, the sanitary units of minimum size were without bathrooms (the bathroom was in the kitchen). There are examples of planning the apartments when kitchens haven't got natural lighting. A lot of living rooms appeared with windows facing the tight inner yard, therefore they were poorly lit and not installed. In addition, this phenomenon caused psychological discomfort because of the view of the windows of the apartments faced the wall or the windows of the located near (10 m) houses. During this period increased the percentage of dwellings with no natural light. There are apartments with area of 4-6 m² that did not allow to organize a comfortable sleeping area [6]. All these facts indicate the significant decline in living conditions. The structure of the housing includes only basic kinds of resting to support vital activity of the residents. Needs of physical activity, family and non family communication and also culture- educational and amateur activities can be realized outside apartment houses. In the fourth period (1991–2016) frequent is increasing the size of the apartments as the result of building the additional objects to the house from the side of the yard or balconies, galleries [6]. This indicates the desire of residents to increase the total area of the apartments for organizing the additional resting areas. The above built objects of the buildings and free areas of existing attics were attached to the structure of lower apartments allowing to organize the additional functional areas and to ensure the optimal conditions for quiet and active resting of all members of the family. The main trend of the recent years is joining two or more small apartments into one big apartment to create the space for a realization of recreational and healthy activities. It is characterized by high quality, targeting, combination, self-fulfillment and differentiation of recreational space organized as a result of reconstruction of historical multi-storied buildings.

Proposals for the reorganization and development of recreation functions. Characteristic, which determine the direction of reconstruction of apartment buildings in Lviv 1772–1918 for the purpose of creation of optimal conditions for their residents rest are: planning structure of the house and flats (typological features and possibility to change the planning structure of flats and the house, schemes of rooms organization, dimensions and dwelling space), number of storeys (possibility to increase the dimensions of the house in height), the height of the storey (the height of the dwelling and subsidiary rooms, the proportions of rooms, possibility to use an excess height), functional and planning zoning which includes two criteria: reserves for space zoning (availability of conditions for differentiation of functions, possibility to redevelop the flat, the storey, availability of conditions for integration of functions) and reserves for providing necessary dimensions of functionality (general space of the flat, formula of its settling, the structure of functional zones, interrelations between functional zones) [1, 2].

On the basis of the determined characteristics positive features of planning decisions of historical multi-storied construction

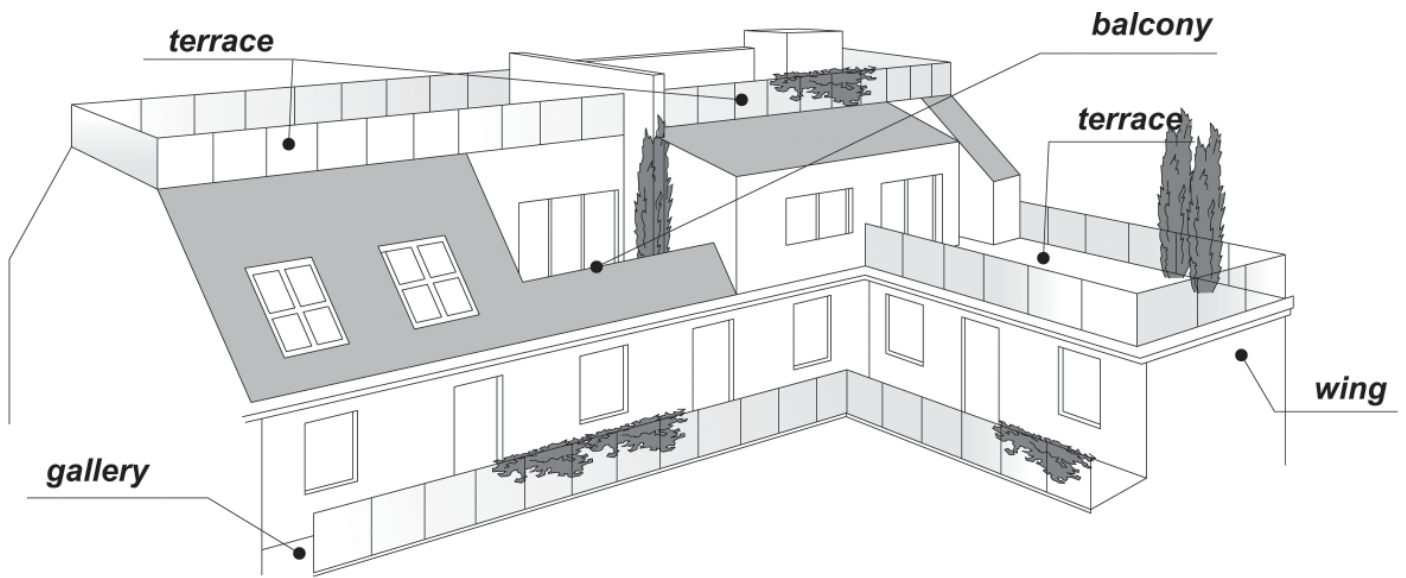
which can be used during the reconstruction for the purpose of creating excess rooms for recreation: large height of the storey, large area of the dwelling rooms (according to the results of the author's research the average space of a dwelling room today is 20 m²), a large width of the main building, frequent step of the windows and availability of several window slots in the room, availability of summer rooms (balconies, loggias, verandahs, terraces, etc.) and unexploited attics. During the reconstruction it is necessary to consider existing drawbacks of multi-storied buildings in Lviv 1772–1918: one-side orientation of some flats on the gallery, small areas of kitchens (from 3,3 m) and bathrooms (from 2,0 m), availability of dark and passable kitchens, absence of the hallway, a great number of passable rooms (lodgings), absence of sanitary and hygienic premises, availability of dwelling rooms with no day-lighting [6] (ill. 1). Great influence on the planning of the rooms of the apartment buildings in Lviv 1772–1918 has the height of the storey. In these houses it is within 2,85 and 4,7 m [6]. In the flats, where the height of the storey is more than 4m, it is possible to organize mezzanines as an additional exploited space of the flat. Mezzanines are the best for organizing a sleeping zone.

Frequent rhythm of the windows can be used during the functional zoning of a living room, a bedroom, children's room. It will give an opportunity to combine realization and needs with cultural, educational and communicative needs in psychological quietness.

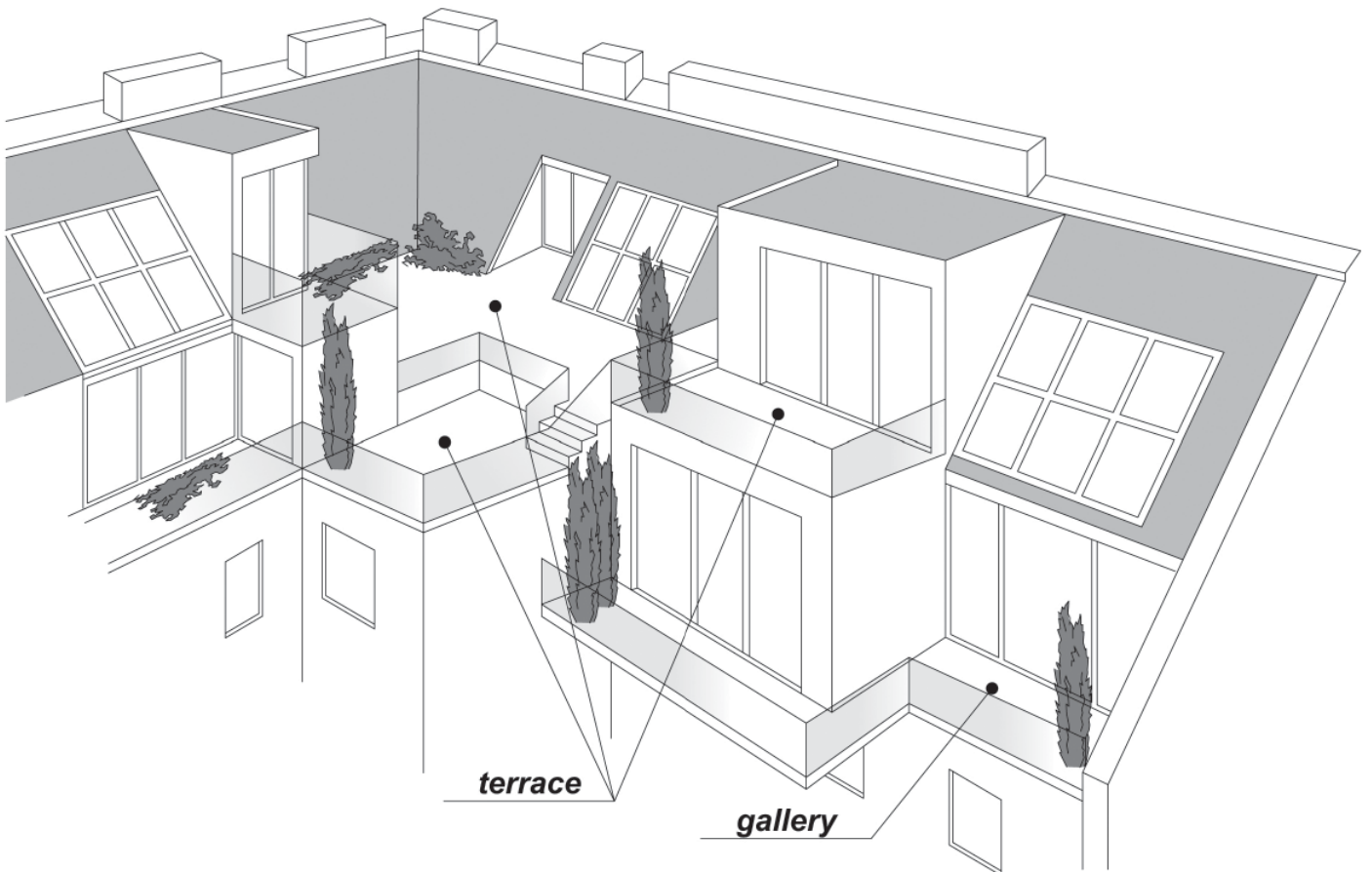
A big area of the rooms and a big width of the main building may be used for the creation a structure of the opened space with the organization of different kinds of the relaxation. Summer rooms are integrated structures of the opened space for the rest, which are assigned for interconnection of the human and the environment into a space for living. Historical blocks of flats have a lot of balconies and loggias of different size, configuration aesthetic and composition expressiveness. They are not used effectual today, so they need to organize the interaction of the residents and natural components (planting of greenery, decorative basins and ecological materials in the decoration), the space inside and outside.

It's reasonable to foresee the organization of the attics from the side of the yard up the flats on the upper floor. Attic storey may be planned in the houses where the high of the garret don't let to have an additional stratum of the flat. It will also let to ensure needs of

A



B



II. 2. The terraces are on the roofs of the buildings. Source: https://www.willhaben.at/iad/immobilien/mietwohnungen/mietwohnung-angebote?PROPERTY_TYPE=110&areald=900&fromExpiredAdId=150693318, <https://s-media-cache-ak0.pinimg.com/736x/f1/10/dc/f110dcfc3d4e710e6bd2c9dbd00cfd0c.jpg>, Graphics: Oksana Pekarchuk

each resident of the modern flat and organize family rest in the building. Roofs may be used for the recreational aims. If the terraces are on the roofs of the buildings, the historical areas will be greener [6] (il. 2). This space can be ecological and cultural core of the flat and ensure realization of different kind of restive activities [3].

In apartment buildings of Lviv which were built from 1772 till 1918 the need to equip the space for the collective rest of the families, where they can realize their communicative, ecological, cultural and educational activities. Having such aim, a universal hall can be projected. They can use it for having lectures, meetings of the residents, wedding parties and holidays. These activities can be organized in special halls, galleries, corridors and light pockets.

During the reconstruction of the historical buildings to remove defects in planning and providing optimal conditions for the rest, they should foresee the expansion of the areas of the kitchens and rooms. They should alter plan and add verandas and loggias. The areas of the rooms, kitchens and bathrooms may get larger, if they use built-in wardrobes and storerooms, corridors in the flats. The reconstruction with the expansion of the part of the building is possible, if they add the space of the galleries and balconies to the structure of the flat for the organization of the smaller auxiliary rooms and increase the area of the flats and auxiliary rooms. They can place kitchens and other auxiliary rooms, if they abolish helping stairs. For the realization the main activities in small flats they can use feature-rich pieces of furniture to transform the space.

Summary & Conclusions

The conception of the reconstruction and refurbishment of the apartment buildings helps to create individual and unique resting space for the each member of the family taking into the attention the way of the life and interests. Creation of the qualitative recreational health-improving surrounding for the rest of different social groups of residents will give a possibility to modernize the housing architecture.

LITERATURE

- [1] Anisimov L. *Printsipy formirovaniya arhitekturyi adaptivnogo zhylysha*, Moskovskiy arhitekturnyy institut (gosudarstvennaya akademiya), Moskva 2009, 30 s.
- [2] Hnes I. *Optimizatsiini zadachi pry formuvanni zhytlovoho seredovyshcha*, Visnyk Natsionalnoho universytetu «Lvivska politekhnika». Seriya: Arkhitektura, Lviv 2009. – 656. – s.105–112.
- [3] Zung L. *Arhitekturnoe formirovanie gorodskogo zhylysha SRV s uchYotom trebovaniy otdyiha naseleniya*, Sankt-Peterburgskiy gosudarstvenniy arhitekturno-stroitel'niy universitet, Sankt-Peterburg 2010, 23 s.
- [4] Linda S. M. *Zhytlove budivnytstvo Lvova u druhii polovyni KhKh stolittia*, Zapysky NTSh, T. SSXLI. Pratsi Komisii arhitektury ta mistobuduvannia, Lviv 2001, s. 126–153.
- [5] Lukyanova L., Tsyibuh V. *Rekreatsionnyie kompleksy*, Kiev 2004, s. 346.
- [6] Pekarchuk O. *Rekonstruktsiia arhitekturno-planuvalnoi struktury bahatokvartyrnykh budynkiv kintsia XIX – pochatku XX stolit (na prykladi Lvova)*, Natsionalnyi universytet «Lvivska politekhnika», Lviv 2015, s. 398.
- [7] Silnyk O. I. *Rozvytok arhitektury prybutkovykh budynkiv Lvova 1772–1918*, Natsionalnyi universytet «Lvivska politekhnika», Lviv 2007, s. 319.