A new look on Community Centers under modern trends in urban design and development

Sergey Stetsky¹ and Valentina Kamagina^{1,*}

¹Moscow State University of Civil Engineering, 129377, 26 Yaroslavskoye Shosse, Moscow, Russia

Abstract. The article deals with one of the most significant problem of urban planning, design and development in its contemporary state-i.e. with creation of social, sport and cultural facilities for all groups of inhabitants within a certain urban territory. It is noted, that the traditional solution of this problem, experienced for the time being in the world is creation of socialled «Community Centers» within a certain planning territory of a city, which is usually choosen to be «a community». The multifactorial analysis shows, that the best way is to design Multifunctional Centers, instead of Community Centers of single functional role. It is noted, that Multifunctional Community Centers are the most generalized type of the buildings in question, being much more efficient.

1 Introduction and theoretical background

One of the new type of social institutions to emerge in urban communities is so called «Community Centers». The concept of this institution is based on increased need and use of extra instructional materials, new emphasis on individual study and desire for communication. [1-9].

Community Centers may be of different types, sizes and functional orientation, but most notable kinds are as follows:

- Multiservice Centers:
- Health/Sport Centers;
- Recreation/Leisure Centers;
- Youth or Elderly Centers;
- Media Centers.

2 Desk case studies

The following text represents the brief description and analysis of the above list.

- 1. Health/Sport Centers. Provide minor health services and serve as a health information center. It is usual practice to combine medical services with sport facilities, such as gymnasium, swimming pool and so on.
- 2. Recreation/Leisure Centers. These buildings are a community facilities of a specialized type. They may contain a range of passive and active facilities from meeting-rooms to

^{*} Corresponding author: kv.9898@mail.ru

gymnasiums and indoor swimming pools. They are usually designed to function as community centers with strong citizen' participation. Most Recreation/Leisure Centers are designed for both young and old on a year-round basis. The integration of indoor and outdoor activities will provide a maximum activities' programm.

3. Youth or Elderly Centers. The Youth Center may consist of a variety of building types from a club to a full-scale Center. Essentially, it caters to teenagers with a range of social and recreational facilities. This would include meeting rooms, gymnasium, swimming pool, game rooms lounges, shops, etc.

Youth Centers are similar to other community centers, except that they direct their activities to a restricted age group, usually under 21 years of age. Centers for elderly serve the citizens by providing them with a place to meet other people. The planned activities are primarily social. They usually include special-interests clubs, cultural groups, adult education programmes, involving in the arts and action groups. Space should be provided for passive activities, such as game rooms and shops. The senior citizen center can be the location of increased number of social, health, welfare and employment services for elderly in community. The activities of the center are highly flexible and are limited only by the people involved. The physical space required should be flexible to meet the changing needs of the elderly. Most appropriate would be moderate-sized meeting rooms, shop, class-rooms and offices. No large specialized space, such as gymnasiums or swimming pools should be anticipated.

4. Media Centers.

Such centers are usually located within school or college buildings. Visitors are suggested verify working and study options. These centers should include multi-purpose spaces, extra staff and work area, which gives efficient support for teaching needs, additional library service space, etc. A variety of digital offerings require special video and study rooms, wired for special electronic equipment. Also, very essential for Media Centers are conference areas, auditoriums for music and drama performance, multifunctional academic modules, art design studios, craft studios and workshops and the wide range of service rooms such as storages, repair shops, etc.

3 Functional, planning and environmental analysis

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All the cases, considered above are put in Table 1.

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In this table, the specific activities, commons for different types of Community' Centers are being described from different points of view as regards to criteria and requirements.

1 able 1	. Special red	quirements to	Tunctional	areas for	specific	activities i	n Community	Centers.

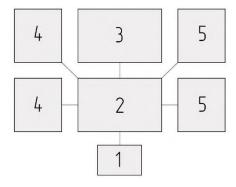
Number	Activity	Rooms and space required	Special functional, planning and environmental requirements
1	2	3	4
1	Sport	 Swimming pool Multipurpose sport hall Accessory sport hall Storage Changing rooms First aid room Coach room 	 Light, ventilation, heating Internal finishes Water purification plant Fire escape Special sport equipment

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2	Leisure	 Cinema theatre Music and drama theatre Discotheque Audio and video rooms Bowling hall Rides Service rooms (stage rooms, movie projecting room) 	 Dimensions and distances Acoustics and illumination Viewing angles Fire escape Special electronic and mechanic equipment
3	Recreation	 Indoor and outdoor sitting area Game rooms Studio and lecture rooms Museum and exposition Shops and stores Newspapers stall 	 Dimensions and area Circulation Visual privacy Acoustics and lighting Fire escape Interal finishes Patio or garden
4	Education	- Lecture rooms - Auditoriums - Studios for art and design - Workshops and craft rooms - Library - Administration - Study rooms - W.C.'s, washrooms - Storages	- Light, ventilation, heating, acoustics - Viewing angles and viewing distances - Ramped or stepped floor in auditoriums - Fire escape - Width, height and length of premises
5	Communication	 Conference hall Lounges Sitting hall Lobby and foyer Interchange hall Special interests' rooms 	- Dimensions and area - Circulation - Fire escape - Furniture - Ease of access
6	Catering	 Snack bar Cafe Cafeteria Tea/coffee shop Restaurant Kitchen and wash-up Storages for food Cold storage Toilets, staff rooms, offices 	- Area and shape of rooms and halls - Number of seats - Interior finishes and decoration - Fire escape - Lighting and ventilation - Intimate areas - Special equipment and furniture
7	Health	 Medical service Dental service Psychiatric service Preventive care (diagnostic and medical information) Drug store Small sport facilities 	 Ventilation, heating and lighting Special electrical and medical equipment Privacy Fire escape Internal finishes

8	<u>Social</u>	 Action groups' headquarters Employment service Welfare service Job training service House service Home ecology Politics' Club 	Requirements mainly in connection with area and number of rooms needed
9	<u>Office</u>	 Staff and administration Collection store (professional) Assembly room Special rooms, such as archive Reception, ward area, toilets 	- Cellularistation - Internal finishes - Dimensions and areas - Heating, ventilation, acoustics, hahting - Electrical and mechanical equipment
10	Services	 Toilets Mechanical equipment Cloak room Halls and corridors Shops and stalls Storages Maintenance and repair rooms 	Requirements manly in connection with area and number of rooms needed

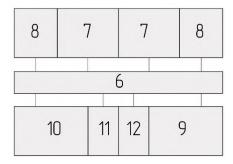
The data, presented in Table 1, are used to create a set of final conclusions upon the problems considered in the article [1-4,7-8,10].

Figure 1. The example of functional scheme for a Multiservice Community Center is shown on



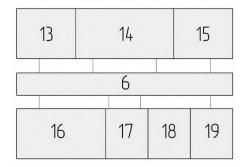
A – ground floor

<u>Key:</u> 1 - entrance; 2 - lobby, foyer, sitting area; 3 - cafe/cafeteria/snack bar/restaurant; 4 - medical services/preventive care/drugstore; 5 - social services/welfare/job training, etc.



B – first floor

<u>Key:</u> 6 – corridor; 7 – conference hall/lecture room; 8 - administration' offices; 9 – library; 10 – Art studios; 11 – workshops; 12 – craft rooms.



C – second floor

<u>Key:</u> 13 – gymnasium; 14 – cinema theatre; 15 – Drama theatre; 16 – discotheque; 17 – audio rooms; 18 – video rooms; 19 – rides.

<u>Note:</u> On the schemes above stairs, toilets, storages, cloak rooms, etc are not shown for easiness.

Fig. 1. An approximate functional scheme of a 3-storey Multifunctional Community Center

4 Conclusions

- 1. The functional content of Community Centers of different type has a constantly-repeated set of rooms, halls, and other premises, as well as equipment and furniture, which are similar for number of Centers' types. They are meeting rooms, lobbies, toilets, administration offices, staff rooms, storages, catering facilities, headquarters of community' action groups and so on.
 - That's why there is more efficient to use a special kind of the Centers in question-i.e. so-called «Multiservice Center», which reflect social, cultural, economic and educational needs of each community. Its organisation and operation must be flexible and multifunctional to meet the constantly changing community' needs. Combined with the service, mentioned above, may be the traditional social, sport, recreational, and so on facilities.
- 2. The Multiservice Community Center should be of several storeys high with a central planning core, which contains all the services and facilities, mutually shared. The ground floor should be designed to accommodate all the premises to match elderly' needs. On contrary, upper floor should be designed to satisfy the requirements of young people. Say, it should contain the major part of sport, media and education facilities, while on ground floor the social, welfare and medial facilities should be placed.

References

- 1. S. V. Stetsky, A. D. Serov, *The specifics of comfortable microclimate creation in office buildings for climatic conditions of Near East Countries* Industrial and Civil Construction, **12** (2017)
- 2. B. Steck, European practice in the integration of lighting, air-conditioning and acoustics in offices Lighting Research and Technology, **1(1)** (1969)

- 3. S. V. Stetsky, A. I. Gerasimov, Noise protection of civil buildings enveloping structures in big cities of countries with hot climate" Roofing and insulating materials, **1** (2009)
- 4. A. V. Zaharov, Architecture of civil and industrial buildings. Civil buildings (Moscow, Stroyizdat, 1993)
- 5. T. G. Maklakova, History of architecture and building technique (Moscow, ASV, 2006)
- 6. T. G. Maklakova, Architecture of industrial epoch (Moscow, ASV, 2014)
- 7. A. K. Soloviev, Under the editorship of Fundamentals of architecture and building structures (Moscow, Urait, 2014)
- 8. E. Bacon, Design of cities (New York, 1968)
- 9. V. Gruen, The heart of our cities (New York, 1964)
- 10. S. V. Stetsky, Lectures on urban planning, design and development (Lattakia, Tishreen University, 1991)