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ABSTRACT

Human relations are one of the most important demands of society. Open public spaces are designed to create and develop the vital needs of human. In the early stages of history, squares were created for population communication, which today partly serve their purpose. And before addressing new social communication areas (SCA) solutions, it is necessary to discover and study the current social life of the population and almost formed socially active zones in the observed area. This article discusses the methods developed to identify them.

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Introduction. The city is one of the oldest forms of human settlement. This is the result of people's desire to improve living conditions and develop the environment; earlier - the conquest of nature in their own interests, and now - the creation of unity between the natural and artificial environments [1]. It is necessary that humans have a relationship with the environment and society. Within social psychology many definitions and meanings have been given to social activities and relationships. McMillan and Chavis [2] defined the sense of community as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together”. The sense of belonging to others is conditioned by the separation of that with the sense of place [3]. Researchers believe that reducing one's social interaction is one of the negative consequences of population density [4].

As early as the 19th and 20th centuries, architects were alarmed by the impact of technological advances on undesirable transformations of the urban environment. K. Zitte wrote that "people have received their own type of nerve disease, 'fear of the public', in large, empty areas where one feels a certain amount of fear and dissatisfaction" [5].

The primary places of social contact were the squares that today are in the merger of transport infrastructure and SCA. Berlag wrote about the streets and squares: "They have lost so much beauty that you can only remember the narrow medieval streets with regret. Many boulevards of enormous length have been dismantled, looking at the facades of casual buildings" [6]. Modern experts point out: “The real concentration of urban areas - centers of old settlements - has disappeared. There is no space for its soul” [7].

Therefore, it is necessary to revitalize existing ones or create new ones. And before proceeding to their design it is necessary to study the social life of the population; only then we can have a reasonable proposal-project on the SCA’s. The purpose of this article is to develop methods for identifying socially active areas of the city to determine their future [8]. The work was done on the example of Yerevan city.

Types of social activities. We can distinguish between necessary and optional types of social activity [9]. Throughout history, many forms of social activity up to the 20th century were implemented as needed. For many, the street was a place for work and money. Subsequently, commodities transportation and hard work took on different modes of transport, and urban space gradually gained in the importance of
leisure and entertainment that continues to this day. Human social mobility can also be classified as: active - jogging, cycling or roller skating, speeding and passive - performing activities without significant movement. And we can say that the index of the active species is increasing (Figure 1).

Methods for revealing social active zones. Now let's find out what volumes of population are moving and stopping in the regions day-to-day. For this purpose, the volume and proportion of daily passenger traffic was studied: in the number of buses and minibuses. The retrospective study was carried out in September 2013 by WYG International Limited [10]. At each of the 24 public transit points, a passing survey of each passing bus was carried out, and a load rating of 1-5 was assessed. Digitizing the estimated load results revealed that 266,000 out of 547,000 passengers are in the city center per day (Figure 2). Particularly active are the stops at the roundabout, on Prospect street, at the intersection of Khanjian-Tigran Mets streets. These are general necessary and optional activities throughout the day.

Fig.1. Social activities development in the urban environment from 19850 to the present day.

Fig.2. Buses and minibuses load survey results

Finding out that the population is most active in the city center, the next one is to explore the city center itself, already on holiday hours and days; our goal is to identify the types and places of optional social activity. In scope of this article to find out the active zones of the city we have developed a faster and minimally costly method, the logic of which is identification of the location of the subscribers through telephone calls, which was developed by us. Within this framework, using the above-mentioned method, we took the location of the unit's users in the unit period (percentage) from one of the mobile operator in Armenia and discovered the most active areas in the free periods for population. It was observed between 6 pm and 11 pm, Saturdays and Sundays.
The layout is highlighted with green gardens and orange squares, purple: socially active pedestrian streets: SCAs. By examining these areas, we can characterize them.

**Squares** - as a result of recent studies, we have found that the activity of the number of phone calls in them is due to the drivers’ calls, that is to say, the SCA’s are not seen as such. For pedestrians the squares serve as a transit route. The only one mentioned in the plan is Liberty Square, which is a pedestrian and is a SCA.

**Gardens** are predominantly green spaces, full of benches, cafes, bicycle paths; some also have playgrounds and sport areas.

**Socially Active Pedestrian Streets** - these are the newly designed SCA’s. Observing Freedom Square, North Avenue and Cascade (the most active points on figure 3), we can identify common characteristics that are exist in each of them: cafes, seat places and a minimum flow of transport infrastructure. So, these are special elements of SCA’s.

However, the above mentioned SCA’s are not completely free of transport infrastructure flow. The basic property of a successful urban area is that a person feels safe on his streets among all strangers. He should not automatically have a sense of threat. An area that does not provide this is unsuccessful in other respects and creates many problems for itself and for the city as a whole [11].

**Examining research questions.** We have conducted a social survey to find out what kind of leisure and social activities the residents prefer [12]. The survey was conducted by 1000 Yerevan residents, with an average age of 39 years. Below are the results (Figure 4,5,6,7).
As can be seen from figures about 56% of the population prefers to spend their free time in the city center and 52.2% of them in Cascade and prefer a socially active type of life.

Nowadays many countries are considered an integral part of SCA in the cities and they are reactivating and refurbishing: by giving the importance to pedestrian ensuring their safety. The flow of transport infrastructures is minimized in these areas. As for example in New Road in Brighton (Great Britain), which in 2006 became a pedestrian, after of transformation the number of people in the street increases by 60%, and the types of inpatient activity are increasing by 600% [7]. Here is another example: a busy street like a Times Square in New York (USA) in 2009 it becomes a pedestrian. After improvement, the number of accidents decreases by 40%, vehicle collision, 20%, criminal activity by 20%, air pollution by 60% [13].

Results. Almost 1/3 of the Armenian population lives in Yerevan [14] and as we found half of them prefer to spend their free days and hours in the city center. The demand for organized SCA’s is growing accordingly. And it is clear from the surveys that there are only three organized SCA’s in the center of Yerevan: Cascade, North Avenue and Liberty Square. In addition to the conditions preferred by the inhabitants - seats, cafes, playgrounds, it is important to have a minimal transport flow, instead of overwhelming pedestrian space. However, these are not entirely free of the transport infrastructure. The first of 12 standards of quality of life developed by Jan Gehl is the protection of the population from transport [7]. As Posokhin wrote: “The city is a maze of oppressive man without free spaces. It requires a rhythmic shift of open and closed spaces, a combination of narrow and wide streets, large and small squares, parks and gardens. Compositional tricks in this case are endless” [15]. Priority should be given to adjusting SCAs in the city center to suit them to pedestrians and their needs. Or to create new SCAs.

As a result, we can identify the main elements of the creation of modern SCA’s: cafes, green areas, playgrounds and pedestrian areas (fig.8).
**Fig. 8. Structure of SCA**

**Conclusions.** The main organized SCAs of Yerevan are in the city center, scarce and not adapted for pedestrians. It is necessary to arrange for some of them to be fully pedestrianized, thereby activating them, giving preference to pedestrian movement. It is also needed to create new ones using the elements of their creation. Corresponding to SCA’s classification [16] other types of SCA also should be activated. It is no less important to decentralize the social activity of the population, to consider the creation of new SCA outside the city center, thus unloading the center.

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