

Regional Location of Commercial and Household Service Complexes in Uzbekistan Regions Taking into Account Natural-Climatic Conditions

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Abstract: It consists in the development of recommendations and proposals for architectural and planning organization in the formation of commercial and consumer service complexes in the regions of Uzbekistan. One of the urgent problems of modern world urban planning is the process of development and formation of agglomerations. The greatest influence on these processes in recent years has been the growth of the urban population, its concentration in economically developed large cities, the strengthening of ties between individual cities and villages (both transport and social, household and labor ties). In the following years, a significant increase in the development process in the socio-economic sphere of our country was noticeable. As the cultural level and material well-being of the population of the republic grow, so does its activity, purchasing power, and demand for agglomeration-level institutions focused on entertainment and public services. All this is considered expedient to create objective conditions for the accelerated development of cultural, residential, shopping centers focused on serving public interests.

Keywords: agglomeration, trade, complexes, natural environment, microclimate, pedestrians and transport.

1. Introduction

It is urgent to develop trade and household service complexes in the regional centers of Uzbekistan in accordance with modern principles. Architectural-planned organization of shopping centers and its effective operation, organized transport and pedestrian traffic on a planned basis are also considered to be key issues. In the world, special importance is attached to the issues of development of social infrastructure and trade-household service complexes at the level of agglomeration. Currently, in developed countries, measures are being sought to increasingly activate social and economic relations and use the roads of agglomeration importance in this area. It is required to implement comprehensive projects on the formation of agglomeration trade complexes that have arisen on the basis of such worldly demands and are connected by highways. Special attention is being paid to the reconstruction of shopping complexes due to natural needs. Research on architectural and design features of new, modern types of commercial and household service complexes is considered a priority.

In Uzbekistan, like in other countries of the world, group systems of population areas are rapidly forming. AJGT (group systems of settlements) is formed based on certain factors.

In the formation of AJGT or "agglomerations", such factors as the development of mutual relations between urban and rural population areas, the wide spread of population migration processes, the complex development of the network of population areas, and the development of spatial concepts in the field of urbanism are the main factors [1,2].

However, in the scientific studies devoted to specific agglomerations in Uzbekistan, special attention was paid to its specific characteristics in the study of the relationship between the cities of our republic and the surrounding area.

The development of city centers and the formation of shopping complexes have been widely discussed in the practice of urban planning in many countries in recent years. This phenomenon affects the structure and architectural appearance of the city centers in modern conditions. The problems of architectural formation of commercial centers of cities require a comprehensive consideration of complex urban development processes. For example, we all know that historical streets, villages and cities did not appear by themselves, they were formed along the streets. The development of the city center as a socio-cultural and public trade center requires the strengthening of the central functions of the agglomeration [2,3].

In the process of development of the regional centers of Uzbekistan, their centers are being formed. In the design of commercial and household service complexes in the center of cities, taking into account the traffic and natural climate, there is a need to organize parking lots in the centers and streets of densely populated cities. As a result, noise and toxic gases begin to affect the physiological and psychological condition of the population and negatively affect the city's ecology.

In historically existing cities, commercial and household service complexes, that is, markets, were formed before the appearance of motorized transport [3]. Currently, the design of new commercial and residential service centers will have to take pedestrian and traffic into account. The main reason for the main difficulties in the formation of trade and household service complexes in city centers is related to the organization of pedestrian and traffic flows. That is why the place of organization in terms of urban planning in the design practice of trade and household service centers is incomparable. Based on this, their main goal is to balance pedestrian and traffic flows with the help of architectural and planning tools [4,3].

The essence of the matter depends on the activity of trade and household complexes specializing in trade for placing trade centers in the city structure. Shopping centers are considered to be the central collective life arena of cities, as well as a place for public gatherings and other events. As a regional center, as the city grows, the population's demand for agglomeration-level shopping centers also increases. For this reason, various services begin to be integrated in commercial and household service centers. There is a need to protect workers and visitors from the sun, rain, snow, dust and other natural influences in shopping centers [5,6].

We can consider the basics of architectural-planning design of trade-household service complexes in regional city centers in natural-climatic conditions. According to our observations, the role of the natural environment, lighting, acoustics, microclimate requirements, pedestrian and traffic management issues in the design is important. Architectural-planning design of commercial and household service buildings and structures in regional cities requires the following:

- comfortable environment;
- the optimal ratio of natural and artificial light;
- enough insulation and sunscreens;
- requires organization of microclimate in buildings;
- thus, it requires the organization of trade-complexes at exit points in the city, while connecting them with highways [5,6].

For this reason, a draft recommendation on the division of the territory of Uzbekistan into zones was developed;



Figure 1. Service in the settlement system of a large population scheme of organization of centers:

In our work, recommendations were developed for the placement of commercial and household service complexes in the cities of Karshi, Urganch and Jizzakh, which are the urban centers of Kashkadarya, Khorezm and Jizzakh:

Ways of adapting commercial and household service complexes to the location, functional composition and natural-climatic conditions in the city structure have been developed;

Ways to adapt and connect the micro-climate of commercial and household service complexes to local natural and climatic conditions in the cities of Karshi, Urganch and Jizzakh;

Due to the favorable climatic conditions (duration of the hot season) in Uzbekistan, an offer and recommendation of a shopping complex was developed based on the following project:

(Figure 1.) Open, semi-open and closed commercial and household service complexes were divided into:

1. For the open organization of trade and household service complexes, the main trade streets are open and various trade and household service enterprises are placed around it.

Open trade and household service complexes are economically efficient. Trade and household service complexes are organized in temperate cities, for example, in Jizzakh region.

I. The semi-open trade-household service complex was divided as follows:

1. For the open organization of trade and household service complexes, the main trade streets are open and various trade and household service enterprises are placed around it.

Semi-open trade and household service complexes are organized in open and closed main shopping streets. Trade and household service enterprises are placed along the streets. Such trade and household service complexes are organized in flat areas. For example, it is organized in Kashkadarya region.

II. A closed commercial and household service complex is organized as follows:

1. Closed commercial and household service complexes are organized in a compact formation around the main closed shopping streets. In this case, trade and household service complexes can

be fully protected by customers in adverse climatic conditions. Such trade and household service complexes are established in cities that are mainly affected by the desert. For example, it is organized in Khorezm region [7,6].

Ways to achieve planning diversity and compositional unity in the development of commercial and household service complexes in regional cities of Uzbekistan are recommended:

The movement of cars in regional city centers creates a number of negative processes and has a great impact on commercial and household service complexes located in this area. For this reason, the demand for shopping complexes organized in a way suitable for pedestrians and traffic, as well as natural and climatic conditions increases. [8,9].

A large-capacity parking lot organized around cities is important for the effective operation of commercial and household service complexes at the level of agglomeration. But in this settlement, the places reserved for public and private vehicles require to be organized on the basis of a clear plan. Because this parking lot can be used by customers coming from different districts of the agglomeration by public and private transport.

It is also important to organize pedestrian traffic for organized trade and household service enterprises and institutions. Currently, large flows of pedestrians cross the street from one side to the other, disrupting vehicular traffic and creating traffic jams. To solve the problem, it would be appropriate to build a pedestrian bridge underground or over the street.

The architectural spatial structure of regional city centers serves as a basis for the organization of pedestrian and transport traffic. The organization of trade and household service complexes in the system of the agglomeration core will attract the population of the entire region. In this case, as a rule, service institutions and enterprises are embodied, public activity is high, the city center of the agglomeration level develops public functions and becomes an attractive environment for residents.

Alternatively, in many cases, a superficial approach to creating pedestrian zones limits access to the city center, prohibits the movement of vehicles in densely populated areas, and allows movement in a limited circle [10].

Such a situation is organized mainly by equipping and beautifying shopping streets intended for pedestrians, considering and forming city streets as a multi-functional complex. Therefore, a project scheme was created for the complex organization of commercial and household service complexes in one place, where architects are indicated. [11,12,13,]

Therefore, the service network is classified by zones, regions and at the same time by the type and character of service.

Thus, for the purpose of determining the capacity and type of shopping centers at the agglomeration level, they are divided into the types of shopping centers serving the densely located large residential area of the main city of the agglomeration or the types of shopping centers serving the entire agglomeration.

When solving urban planning issues, it is necessary to take into account a large number of customers visiting them and a large amount of cargo flow.

The first factor requires the organization of entry and exit to the complexes, and the second is the organization of roads for the delivery of goods and products. Therefore, taking into account the specific requirements of these structures, that is, we consider it advisable to design closed, semi-open and open commercial and household service complex buildings in accordance with the natural climate.

Results: The location of the shopping center is very important for its successful development. Transport connections of the regional center with other settlements in the agglomeration should be taken into account for the placement of the commercial and household service complex. A suitable geographic location for a construction site is determined by the economic aspects that

characterize the area. Economic aspects are related to the adaptation of the agglomeration core to trade and household service complexes. When considering two plots of land that may be identical in all other respects, it is necessary to carefully consider their location and relevant economic data.

In order to avoid the risk of blind establishment of a shopping complex, it is always necessary to take into account the nature of the area where the shopping center is located, regardless of whether the selected land is available for urban planning or a suitable place has not yet been found.

In this case, it is necessary to take into account the service radius in the master plan, that is, the maximum distance between shopping complexes and customers. In shopping complexes, access by vehicle should be convenient, and the flow of external cargo and the flow of customers should be separate [5,4,8,12].

The formation of shopping complexes in the regions we are considering, Connected from urban centers by roads of regional significance

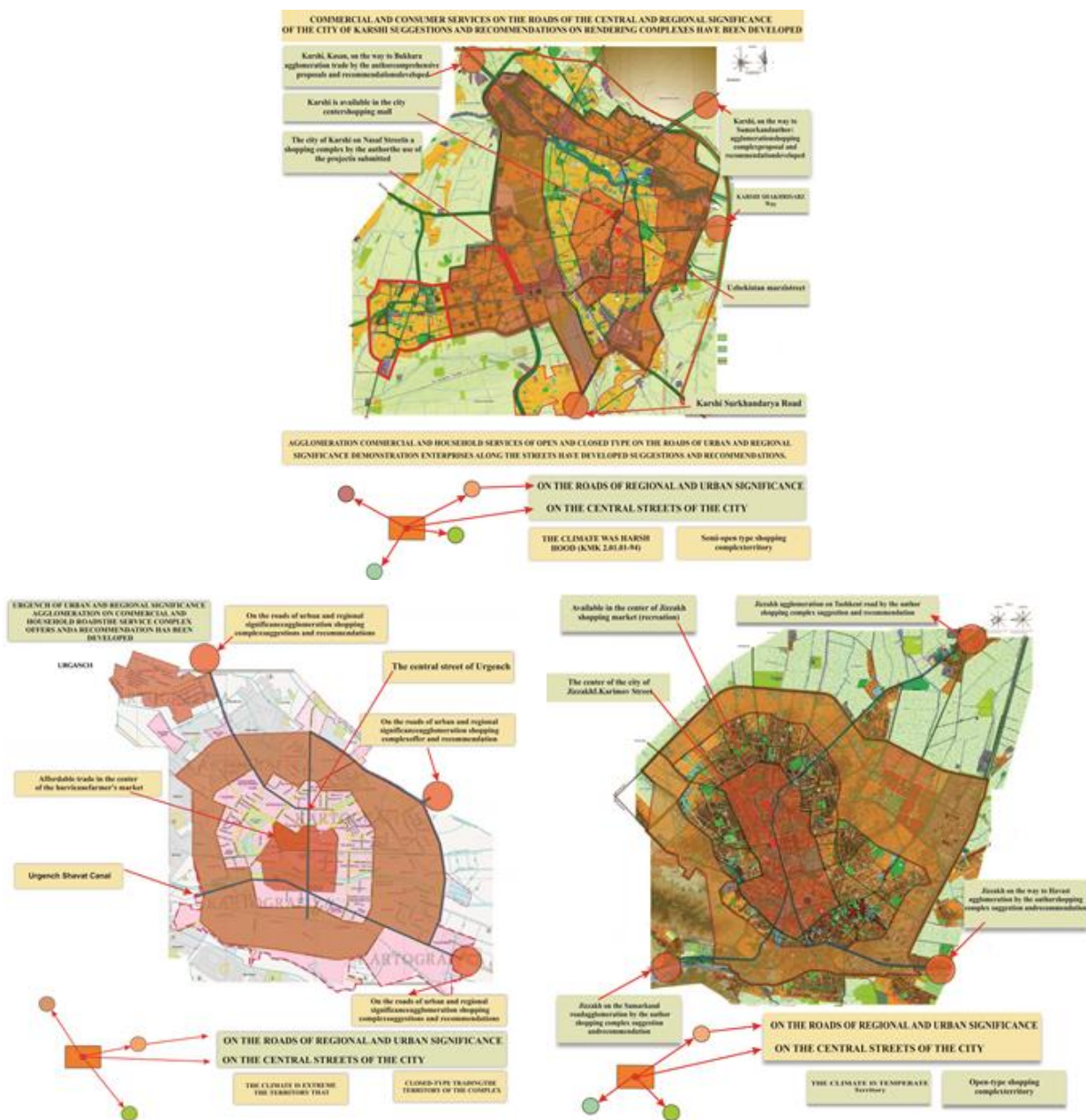


Figure 3-4-5. Schematic model of urbanization of the urban centers of Karshi, Jizzakh and Urgench.

The image above shows the isochrons of transport adequacy: 1-primary urbanized urban centers; 2-highly urbanized areas; 3-second-level centers; 4-second-level centers

(5) together with the main urban centers.

Scheme of population location of shopping complexes in Kashkadarya, Khorezvim and Jizzakh regions and cities with agglomeration group:

1- Territorial population location and regional administrative border;

Group location of the population based on the center of the 2nd region;

3- the boundary of inter-district local population settlement;

District 4 local population settlement boundary;

5th inter-district center of local population settlement;

District 6 is the center of local population settlement.

We considered our recommendations in the scheme of exits from city centers from the point of view of urban planning.

The reason for this is that the demand for shopping complexes in regional city centers is increasing and causing traffic jams. Of course, studies have been carried out for regional placement of shopping complexes and for placement on exit roads from regional city centers [16].

Development projects of urban settlements in agglomerations are being implemented in our republic, relying on theoretical and practical knowledge, using world experience. In the planning of cities, it is required to study the natural and climatic conditions of the region, take into account the lifestyle of the population, design commercial and household service buildings with all conditions in a comprehensive manner, and build the regional city connected with highways.

Compared to other trade and service enterprises, shopping centers have a number of advantages, in which the problems of traffic and road crossing are solved, and residential areas in districts are zoned [14,17].

At the same time, the use of commercial complexes is solved in accordance with the natural and climatic conditions of the regions of Uzbekistan.

Placement of trade enterprises in an integrated manner, meeting the demands of customers in a wide scope, necessary amenities are created. Due to the unification of constructions and the use of a single plan system, construction periods are reduced. A wide range of compositional possibilities opens up in the design of this complex and diverse complex of buildings.

The classification of trade centers in the agglomeration and the organizational principles of the service system are of great importance. The organization of retail enterprises, public catering and household service networks is solved depending on the structurally planned size and population of cities and districts in the agglomeration [14,18].

Figure 3-4-5. Recommendations for organization were given based on the recommendations under commercial and household service complexes.

1. Facilities (trade and service buildings, offices and other public buildings);
2. Parking places;
3. Pedestrian crossings and corridors;
4. Roads for car traffic;
5. Places for public transport;
6. Buffer area (well equipped) area separating parking lots from external roads);

7. Reserve space (in case of expansion of the shopping center).

It is proposed to form the main goals of transport planning in shopping centers as follows:

- a) organization of free movement of vehicles along the road system surrounding the shopping center;
- b) efficient movement from highways to the location of the shopping center; transportation at the location of such a center;
- c) organization of convenient and economical parking lots;
- d) separation of service transport and customer transport;
- e) provision of isolated places for public transport and passenger unloading [8,12,15,19].

In fact, this planning consists of determining the size, location and type of each shopping center based on its geographical location.

Application of such recommendations will create comfort for the population and be effective from an economic point of view.

In conclusion, taking into account the fact that the regions are located in different regions, they are different from each other in terms of natural and geographical aspects, and the dry and hot climate is characteristic of all regions, division in the design of trade and household service complexes in the cities of Karshi, Jizzakh and Urganch it is recommended to use open, semi-open, and closed architectural-spatial solutions by zone. The rational organization of pedestrian and traffic movements in architectural solutions will also be of great importance. Trade and household service complexes in the cities of Karshi, Jizzakh, Urganch are organized spatially and functionally. Based on suggestions and recommendations, the service radius of commercial and household service complexes located at the entrance and exit of the cities of Karshi, Jizzakh, and Urganch has been determined. In the formation of modern agglomeration trade and household service complexes on regional highways, passenger and traffic flows, the level of satisfaction of their needs and parameters of urban planning, the capacity of objects for pedestrians and transport needs, service radius and socio-economic The factors of the organization of trade complexes were determined and proposals were developed by means of experiment design. It has been proven that the proposals for the organization of commercial and household service complexes at the entrance to the regions can also be used in neighboring countries.

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