

THE PROBLEMS OF CREATING AN INDIVIDUAL COURTYARD LANDSCAPE IN DESERT CONDITIONS

Surayyo Gayratova

Abstract— Every oasis is characterized by its climate, temperature, wind, humidity, radiation, insulation, aeration, lighting and landscaping, which are considered as important factors of the climate of the country. The climate of the oasis of Khorezm is quite significant (relatively variable) compared to other regions of Uzbekistan. The oasis of Khorezm on the heated air temperature is the second after Termez Region. Here absolute maximum temperature rises up to 50. At 4:00 PM, the temperature reaches its peak, with the sunrays coming from the southern-west side. Therefore, it is not advisable to focus on the building windows. This orientation of windows requires a higher degree of heat compatibility.

Index Terms— characterized zones, ground, north, climate, zones, microclimate function, growth, landscape.

1 INTRODUCTION

EVERY oasis is characterized by its dry climate, temperature, wind, humidity, radiation, insulation, aeration, lighting and landscaping, which are considered as important factors of the climate of the country. The climate of the oasis of Khorezm is quite significant (relatively variable) compared to other regions of Uzbekistan. The oasis of Khorezm on the heated air temperature is the second after Termez Region. Here absolute maximum temperature rises up to 50. At 4:00 PM, the temperature reaches its peak, with the sunrays coming from the southern-west side. Therefore, it is not advisable to focus on the building windows. This orientation of windows requires a higher degree of heat compatibility.

2 THE MAIN PART

2.1. Zones

A.A. Mahkamov divides the Central Asian region into three main natural zones: the I zone- is the steppe zone of active desertification (4 A and partial 4 G climatic zones), II zone - climatic regions); III - Zone with cold weather conditions (high mountainous regions, I V and II climatic regions). The first and second zones are radically different from one another in landscape-climatic conditions. The first zone is characterized by adverse climatic factors, characterized by a

bright landscape with extensive landscape conditions. In areas with better climate conditions, the most environmentally friendly landscapes will be constructed in an open, environmentally friendly manner, and the affected areas will be closed and compact, contrary to the adverse effects of nature.

2.2. "HYPO-PHASE SPACE"

The Khorezm oasis enters the first zone, which, in turn, requires the creation of residential areas on the principle of "hypo-phase space" and protection of the living environment. This principle is reflected in the organization of a closed courtyard, and this indoor courtyard serves as a cool air cooler in summer. The main pavement of the courtyard is, of course, the protection of the house from the hot summer in the summer.

3 THE CLOSED MICROCLIMATE FUNCTION

The closed microclimate function of the closed courtyard can be understood in two ways. Firstly, the continual cool climate of the indoor courtyard creates conditions for the busy summer business and the well-being of all the family members. Secondly, this large,

closed structure directs cool air to all the rooms around the yard and allows them to maintain permanent microclimate. The velocity of airflow in this region depends on the nature of the multilateral surface plane. In the outer regions of the country, the velocity of the airflow is much higher than its center. At the same time, the wind in the central part of the country is weak, but its vibration amplitude is relatively low. Based on research, the speed of air flow depends on the width, height and length of the building, the roof slope, the orientation of the building, and the number of windows in it, layers and lighthouses. One of the elements of traditional houses in the Valley of Khorezm is to lay the umbrellas over the high tent housings in them. These layers provide good conditions for the wind and allow the wind to be extended directly to the innermost bottom of the yard. The accommodation of the living rooms depends on the natural ventilation, air exchange, aerating temperatures inside the building and outside, as well as the weathering and splinting of the wind. In order to create a constant airflow to the temperature difference, the windows of the airflow and the entrance should be located on different layers of the building. Khorezm's houses require nighttime geometry of refrigerated air and requires room ventilation in other hours of the day. Lighting of the rooms is subject to the rules of aerating and radiation of the interior rooms, with the installation of the protective equipment for the windows. It is important to place windows on the sun. The south facing walls focus on the east and the west facing the walls during the summer, with less heat. The easiest orientation for the summerhouses is to the north, and for the winter zones requiring maximum heat, the best orientation is for the east, and then the western and southern sides are of the same importance. The energy efficiency of solar radiation in the oasis of Khorezm forms a highly desirable orientation in line with generally accepted

rules. Notwithstanding, in addition to heat dissipation through sunlight, builders know the lighting mode at the same time. Although the summer rooms are mainly north, they are provided with adequate lighting for all the conditions, as in the summer there is a considerable amount of time and light intensity. For winter rooms it is necessary to choose such an orientation that ultimately achieve maximum heat and light. In the winter, the walls of the sunrays to the south and the walls to the east and to the west receive the most heat. Khorezm masters consider the long duration of the solar radiation in their construction practices. Thus, the aspects of the building types are exposed to heat which are significantly different from each other. This variety of thermal effects indicates that there are uninterrupted connections between the amount of solar radiation and orientation of the sun's rays. At the conditions of rain and snow, the two main components are not only justified, but also actively participate in the creation of architectural and artistic images of rural residential buildings. Due to, the low rainfall in hot and dry climates in Central Asia, especially in the oasis of Khorezm, the two-slit roofs do not justify the aesthetic point of view. Low rainfall in Khorezm necessitates roofing at low slopes. One of the ways of connecting the area with the outside environment in the desert conditions is the use of a wall-covered enclosure with high heat protecting properties for the shelter because this shape ensures a good insulation of the nature of the various harmful effects of nature.

6 CONCLUSION

In the modern rural residential areas of Khorezm, it is more common to have windows covered with oddly oriented gardens. The window-laced logic or porches can be oriented in the northern direction when they are protected from the returning heat rays. Typically, when sun

rises in the sunset, the shelter at the north end of the house receives heat from the direct sunrays. Historically composed rural settlements of Khorezm region are characterized by a certain contrasts of natural and landscapes, which have its own peculiarity. In this region, the focus of the man lies in the precious traditions of the gardens. The nature and climate of the Khorezm's villas, which is characterized by of the gardens of these settlements, the surrounding landscape requires the following measures:

- In contrast to the "volume in space" principle,
- Protecting the environment from overheating under sunshine and orienting the orientation to the north or northern-east or at least to the east. Enhancing ventilation. (Climate is over here).

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