



EXTENSIVE MODERN LANDSCAPING OF ROOFS- THE STRUGGLE FOR CLEAN, FRESH AIR

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ANNOTATION

This article describes the authors propose to use gardens on the roofs which come to us from time immemorial, today they become one of pressing needs of a society in its aspiration to ecologically pure environment.

KEYWORDS: *Shiver, uncomfortable negative emotions, ultraviolet radiation, bio-interior, megacities, and green bio inclusions.*

INTRODUCTION

Architecture, in accordance with the laws of convenience and beauty, plays a large role in shaping the material living environment in which a person lives, works and has a rest.

Imagine: you live in a bustling city - in one of the apartment buildings, in the apartment at the top of it. When you wake up in the morning, you open the window to ventilate your shelter. At that moment, you instinctively look at the roofs of houses lower than yours. Then your heart expands as you gaze at the lush greenery on the roofs, the lush green grass, and the various shrubs and trees. Your eyes will rejoice at the greenery between the earth and the sky. [1]

This is not just a fantasy, but also a reality that has already been realized in some regions of the world!

RESEARCH METHODOLOGY

At present, the improvement of the ecological condition of cities is attracting the attention of the whole world as one of the most pressing issues. A group of experts strongly advocates the need to green the roofs of apartment buildings, large and small businesses and institutions as one of the effective measures to address this issue.

At their suggestion, on the roofs, as well as on the ground, will be built lawns, flowerbeds, recreation areas. This will provide a positive solution to a number of problems related to urban development. First of all, it absorbs dust and ensures ecological purity. Second, it reduces wastewater generated by heavy snowfall or rainfall and prolongs the life of local sewer systems and water treatment

plants. Third, in the summer, the roofs of multi-storey houses, more low-rise buildings, prevent the air from overheating. Most importantly, the air is enriched with oxygen; clean, pure air has a positive effect on human health. Improves the immune system, stimulates the relaxation of human nerves, and the beauty of beautiful, graceful, eye-pleasing nature lifts the mood of workers, people, and this has a direct positive effect on the work process.

Here's a comparison for yourself: the air temperature rises to 27 degrees Celsius, the bituminous and white-painted roof heats up to 49 degrees when the sun shines all day, and the black-painted roof to 82 degrees. If it is covered with plants, the temperature does not exceed 29–30 degrees. This means that in hot weather, there is no need to cool the rooms of multi-storey buildings with electrical equipment. This saves valuable energy used for the same purpose, avoids unnecessary costs, and therefore contributes to a certain extent to the smooth operation of power plants, even in tense times.

Roof greening in European cities has been going on for 10-15 years. In Tokyo, one in five of the city's medium-sized and large buildings must be covered with greenery. In the United States, the city of Chicago is leading the way. In this city, first of all, a variety of plants are planted on the roofs of newly built and then old houses.

According to the results of tests conducted so far, one of the most suitable plants for care on green roofs is sedum. Because it is resistant to heat and cold, it grows slowly and accumulates a lot of moisture in the leaves. There are many types of sedum.



Most importantly, no matter what plant is planted, partial or complete landscaping of large roofs with a surface will not be without benefits. To do this, first of all, pay special attention to soil selection. If possible, it is best not to use natural soil. Because it is relatively heavy and is likely to condense under the influence of precipitation. As a result, its ability to retain moisture and deliver air to the plant root is reduced. Therefore, instead of ordinary soil, it is advisable to use artificial materials, including clay or clayey shale, that is, rocks that have been cooled, enriched with organic compounds and fertilizers.

The type, thickness and number of layers of soil are also important in landscaping roofs.

However, if its thickness is around 75 millimeters, when saturated with moisture and planted low-growing plants, it can weigh from 70 to 120 kilograms per square meter of surface. As the soil thickens, this weight increases spontaneously. At the same time, the opportunity to create a variety of lawns and flowerbeds on the roof, grow shrubs and tall trees expands. Only more money will be spent for this. At the same time, as the plants grow and the demand for climate and air increases, it is necessary to strengthen the soil layer, to ensure that snow and rainwater does not accumulate on the roof and flows down from special gutters.



Prefabricated modules of the same thickness, each with a size of 1 square meter, can be used to build live roofs. When you connect them together, the roof comes into a single shape that is covered and covered with soil. Prevents water from seeping into the roof of the building or the ceilings of rooms due to its high density.

CONCLUSION

Of course, it should be borne in mind that the landscaping of roofs also has its drawbacks. For example, it is possible that the roofs of some houses, especially those built many years ago, are not strong enough, which means that they cannot withstand the weight of green roofs. But a positive solution to this problem will turn any roof into an airy and pleasant place where you can easily drink coffee, have lunch, soak in the sun, dry your skin, and breathe fresh air.

Architecture will be the more progressive and the more fully meet the requirements of creating a full-fledged material living environment of society, satisfying practical and aesthetic needs, the more fully and wider people will enjoy the benefits of nature, armed with the latest scientific, technical and artistic achievements of their time, using not only natural landscapes on earth but also on the roofs.

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