

HISTORY OF EMERGENCE AND DEVELOPMENT OF ECOLOGICAL BUILDINGS

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Abstract: This article discusses the historical development of urban planning and the design of cities with ideal living environments. The article highlights efforts to improve the living environment, including architectural works, sewage technologies, and sanitary-hygienic measures. Overall, the article provides a historical perspective on the evolution of urban planning and highlights the importance of considering social and environmental aspects in urban design..

Keywords: Urbanization, urban planning, ecological buildings, residential buildings, Ancient Greece, landscape, eco-isolation.

INTRODUCTION

During the many centuries of urbanization of our planet, urban planning solutions have been implemented and improved by trial and error. Often, they are determined by the existing socio-economic formation, the level of socio-economic, cultural and scientific development of countries. At the same time, the dream of all the participants of the urbanization process, including urban planners, architects and residents, is cities with an ideal living environment. There was no single opinion about such cities. They have been seen as small towns, large dynamic metropolises and small green "sunny cities" and huge cities with glass skyscrapers. The urbanization of our planet has followed a long historical path, from the first small settlements to magnificent cities.

The settlements of the first inhabitants had the simplest environment, which served to satisfy the primary needs (housing, procreation, protection from enemies, etc.) and did not cause any intractable social and ecological problems related to the relations within the community and the natural environment. . In residential areas, the size and quality of housing and the use of resources are equal. Initially, man used natural caves and artificial structures similar to living or inanimate natural objects that he saw for his living: nests, natural grottoes, etc. Thus, huts appeared, and later houses raised from the ground on stilts.

Primitive residential buildings were built from available natural materials - grass, leaves, clay, bushes, animal skins and bones. After a short period of service, these huts were abandoned by humans during the next migration, then assimilated by nature like any organic material.

Ecological balance was maintained by nomadic tribes after the exhaustion of plant and animal resources in their original habitat or by moving habitats far apart to meet sustainable needs. The deterioration of the environment of settlements due to the increase in the amount of waste has forced people to think about changing their disposal technologies.

The beginning of the greening of the urban environment begins with the appearance of the first urbanized landscapes on Earth - settlements, residential and religious buildings. They were located among natural landscapes that were the most important factors for human existence.

In general, the quality of the living environment in the first settlements was very low, but in the most ancient cities, people tried to improve it using existing methods: the visual environment was improved, monumental architectural works were created, beautification works, improved sewage technologies, body sanitation, etc. were used. An example of these is a terracotta bath and pipe found on the island of Crete (2000 BC). In the palace of the Assyrian king Sargon II (7th century BC), a latrine was found with cisterns next to each toilet seat. In ancient Rome, the first aqueducts (aqueducts) were built for separate clean and less clean water in 312 BC. Public baths and private baths for the rich were built. Roman latrines had flowing drains (similar to modern sewers).

In ancient Greece and Rome, the improvement of the suburbs was helped by temples and sacred gardens with water sources, urban gardens in public institutions (baths, theaters), sports parks, many private properties, and atriums. There were peristyle residential buildings with a water source and a garden in the yard. Bringing nature closer to the house, using various solutions pleasing to the eye - was the rule of architecture.

As cities grew, so did environmental and social problems. Architects and builders of ancient cities created beautiful buildings - palaces, cathedrals, villas, stadiums, public baths, etc. However, labor-intensive and massive structures (such as the famous pyramids) had little universal significance at the time. The magnificence of the buildings preserved to this day, covered with stone carvings or stone sculpture images, inspires admiration.

The appearance of the central part of a number of ancient cities was architecturally very expressive. At the same time, the main part of the population lived in the most simple and poorly adapted buildings. The quality of the living environment in the "housing cages" with open hearths and domestic animals was very poor.

Failure to take into account the complex of urban development factors (ecological, social, etc.) has led to unsuccessful decisions on urban planning. For many centuries, the relationship of builders to the natural environment was as a consumer. As a result, a familiar urban environment was formed: low landscapes of individual balconies and loggias in multi-story parallelepiped buildings; seamless glazing of facades; plants crushed by pollution in parks, squares, streets; polluted reservoirs; large streets and squares covered with an impassable layer of asphalt, filled with cars; factories with a large number of smoke and waste pipes, sludge and other waste drains; covering the city with smoke due to the lack of wind

The natural environment of the city is polluted and almost incapable of increasing oxygen and natural self-purification, so it needs large natural areas adjacent to it, without which the city would not exist. In such a stressful state, the natural environment becomes harmful for humans.

Growing cities become irreversible sources of pollution that cannot be processed by nature and are not adequately adapted to create living conditions necessary for humans (clean air and water, landscaping, sufficient insolation, sunlight exposure time, noise protection, population density, etc.). . Currently, in the cities of developed countries, the quality of apartments, their area, the quality of provided communal services, the level of beautification is increasing, the quality of the environment is improving, and its pollution is decreasing.

It can be seen that residential buildings, industrial buildings, engineering structures are designed and built without taking into account their performance in the natural environment: buildings are bio-negative, they introduce all kinds of pollution into the natural environment, including aesthetic ones. The landscape is poorly used, the buildings are not adapted to the natural environment, the material is sometimes bionegative, the waste is poorly used, and the energy from natural sources is hardly used. The areas occupied by cities and various engineering structures of the earth are expanding. In cities, the soil-vegetative layer almost disappears under the buildings and is excluded from the most important cycle of substances, the ecological cycle. Special studies on the crisis growth of cities have shown that many cities have turned from small settlements into megacities of up to 10 million people over the course of 3-4 centuries.

The conclusion. In conclusion, this article examines the journey of urban planning throughout history, from the humblest settlements to the grandeur of ancient cities. It emphasizes the importance of considering the social and ecological aspects of urban design in creating ideal living environments. While early settlements relied on natural materials and nomadic lifestyles to maintain ecological balance, the evolution of urbanization brought new challenges. However, with the development of technology and architectural achievements, efforts have been made to improve the living environment by incorporating nature and aesthetics into urban design. Despite increasing environmental and social problems, the magnificence of ancient structures and structures continues to amaze. This paper highlights the importance of understanding the historical context of urban planning in order to inform contemporary practices and to strive for cities with ideal living environments in the future.

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