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TYPOLOGICAL FOUNDATIONS AND ARCHITECTURAL FEATURES OF HEALTH AND WELLNESS CENTRES

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Abstract. The development of high-quality healthcare complexes that support the preservation and improvement of public health, as well as provide conditions for raising a healthy generation, is among the priorities of public policy. This article examines the typological foundations for organizing the landscape environment of health and wellness complexes and their architectural features. It identifies promising directions and approaches for the future development of this field and emphasizes the need to develop specific research-based and practical proposals. The formation of landscape environments for health and wellness complexes is considered an important issue in landscape architecture and in addressing contemporary environmental challenges.
Keywords: healthcare complexes, health and wellness centres, landscape, architecture, urban planning, history, typology, cultural heritage.

Аннотация. Создание качественных комплексов здравоохранения, способствующих сохранению и укреплению здоровья населения, а также формированию условий для воспитания здорового поколения, относится к приоритетным направлениям государственной политики. В статье рассматриваются типологические основы организации ландшафтной среды оздоровительных комплексов и их архитектурные особенности. Определяются перспективные направления и подходы к развитию данной сферы, а также обосновывается необходимость разработки научно-практических предложений. Формирование ландшафтной среды оздоровительных комплексов рассматривается как актуальная задача ландшафтной архитектуры и решения современных экологических проблем.
Ключевые слова: комплексы здравоохранения, оздоровительные комплексы, ландшафт, архитектура, градостроительство, история, типология, культурное наследие

Main text

Introduction. Protecting public health, preventing disease, strengthening physical and mental well-being, and promoting healthy lifestyles have become important concerns in contemporary architecture and urban planning. Accelerating urbanization, environmental change, and declining levels of everyday physical activity are increasing demand for health and wellness centres. These facilities should therefore be understood not only as buildings that provide medical services or physical rehabilitation, but also as integrated architectural and landscape complexes that support health, social engagement, and quality of life.

Studying the typology of health and wellness centres makes it possible to classify them by functional purpose, service capacity, user groups, location, and architectural and planning structure. The main types include urban wellness centres, suburban recreational and wellness complexes, sanatorium and resort facilities, sports and wellness centres, and specialized rehabilitation centres. The design of each facility should take account of local natural resources, environmental conditions, transport and pedestrian connections, and the needs of the population.

The relevance of this study stems from the need to organize health and wellness centres in accordance with contemporary requirements, refine their typological classification, analyse their architectural and planning as well as volumetric and spatial characteristics, and develop research-based practical approaches to integrating them with the natural landscape.

The history of medical institutions is an integral part of human history. At each historical stage, institutions for healing occupied a particular place in social life. The origins of organized care for the sick date back to ancient times. During the Bronze Age (the third to first millennia BCE), significant changes took place in early societies: tools for work and hunting improved, and exchange developed. In early communities, people sought help from healers, while places of treatment gradually emerged near religious structures. Ancient Eastern states—including Babylonia, Assyria, Egypt, India, Khorezm, and China—developed a range of healing practices. In Ancient Egypt, treatment was provided at temples as early as around 4000 BCE, and priest-physicians held considerable authority. One notable historical example is the hospital known as Mansuri al-Kabir, or the Qalawun Hospital, built by order of Sultan al-Mansur Sayf al-Din Qalawun [1].

The peoples of the East used various medical institutions and hospitals from very early times. In the countries of the Middle East, the provision of medical care at religious sites is associated with the period when Zoroastrianism emerged (the sixth century BCE). At fire temples, healing centres were established first, followed later by organized treatment for the sick [2].

The Zoroastrian tradition emphasized the value of earthly life and people's ability to create conditions for well-being and longevity. Historical sources provide evidence of early Eastern medicine. Any account of the development of medical institutions in the East should also consider hospitals of the Islamic period. According to historians, some of the earliest were mobile facilities that accompanied Muslim armies. In 706, the Umayyad caliph al-Walid established a hospital in Damascus where patients with various illnesses could receive care [9]. Hospitals of that period were known as bimaristans. Rulers and political leaders contributed to the development of public hospitals, including Harun al-Rashid, Adud al-Dawla ibn Buya, and Nur al-Din Mahmud in Damascus.

The first hospital in Cairo was established in Fustat in 872, during the rule of the city governor Ibn Tulun. In Morocco, the ruler Abu Yusuf al-Mansur commissioned one of the best-known hospitals. Its rooms and courtyard were adorned with fruit and ornamental trees, flowers, and shrubs; vegetables were also cultivated on the grounds. Water flowed through the rooms, and four marble pools decorated the courtyard. The hospital provided care to people in need and was maintained by the institution itself [3].

In Ancient Greece and Ancient Rome, the first institutions that served as places of treatment appeared in cities. Greek healing establishments were known as iatreia and asclepeia [4]. Asclepeia served not only to treat patients but also to teach medicine. They were usually located beside sanctuaries dedicated to Asclepius, the god of healing. Notable centres existed at Knidos, Kos, Pergamon, and Epidaurus.

The Asclepion at Pergamon, in the north-western part of Asia Minor, became particularly renowned. It lay beyond the lower part of the ancient city and was connected to it by a sacred road. The physicians of this centre regarded patients' physical and mental states as interrelated. Alongside treatment, patients prayed, attended the theatre, read, and rested in an olive grove. The Asclepion's plan included porticoes and galleries linking major structures, propylaea, a library, a theatre, the Temple of Asclepius, an assembly hall, and treatment facilities. Three pools associated with a therapeutic spring stood at the centre of the complex and were used for bathing and drinking. Areas for rest and individual stays were provided for patients.

The treatment centre had a circular form and was comparable in size to the Temple of Asclepius. An underground passage approximately one hundred metres long connected the hospital to the spring. At the centre of the circular plan was a vestibule hall, around which treatment rooms and sleeping quarters were arranged.

The hall functioned as a distribution space. An entrance area was arranged in the south-eastern part of the building, with an underground entrance to the treatment facility and an external staircase of complex configuration. The heights of the building's parts were rationally adapted to the terrain. The eastern entrance on the second floor led to a terrace intended for sunbathing, while internal staircases connected it to the vestibule.

The hospital's architectural design did not include a long corridor; the hall served as its compositional centre. A compact spatial arrangement connecting the open courtyard with covered spaces formed the basis of the internal structure. The treatment facility was part of an enclosed complex and was characterized by multiple functions. Its introverted plan created an atmosphere of privacy and calm.

Writings known as the Hippocratic Corpus and dating to the fifth–fourth centuries BCE describe two strands in the development of Greek medicine: the emergence of practical medical practice and temple medicine. According to the cited account, temple medicine did not play a decisive role in the history of Greek medicine. As practical medicine developed, wealthier physicians accommodated patients in their own homes, first in small and later in larger treatment facilities known as iatreia. Medical schools were established there, and instructors were called iatroleiptes [10].

Over time, physicians formed associations and established medical schools in individual cities and on islands. The schools of Croton, Knidos, and Kos are among the best known. They developed practical approaches to treatment and prepared medicinal mixtures using natural materials and plants. These accounts indicate the attention given in ancient medicine to natural resources and medicinal plant materials.

Military medicine in the Roman Empire was highly developed. Military hospitals, known as valetudinaria, were generally established near military camps and received wounded soldiers from the battlefield [5]. Valetudinaria consisted of buildings with inner courtyards, gardens, and lawns. The rectangular main building was connected by short passages to soldiers' wards, each designed for four to six people. Operating rooms, dressing and instrument-storage rooms, medicine stores, and administrative spaces were located in the courtyard and adjoining areas. The hospitals were equipped with heating, running water, bathrooms, or pools [6].

The basic plan of the valetudinarium used a system of double-sided ring corridors. Its central area was organized in accordance with sanitary and safety requirements. This layout provided an economical and functional arrangement for a medical building. Later, Roman civilians were also able to visit valetudinaria. Over time, sports halls, swimming pools, and rooms for hygiene procedures were added to treatment complexes.

The history of hospitals shows how distinct types of medical institutions emerged in different periods. Information about them has been preserved in manuscripts and historical works. The gardens and courtyards of these hospitals are of particular interest: lawns, trees, shrubs, flower beds, as well as therapeutic pools and fountains. From the perspective of landscape architecture and urban planning, historic hospital complexes gradually became significant elements of the urban environment. Where a medical complex included a public garden or square, it could strengthen the facility's role in the city and create a distinctive compositional feature.

Some medical institutions were located in hilly areas where medicinal plants grew, including rosehip, thyme, horsetail, wild mountain mint, plantain, and camelthorn. Infusions were prepared from these plants and, according to historical accounts, used for various ailments. Juniper needles and coltsfoot leaves were also used in wellness procedures.

Conclusion

The historical development of landscape architecture in health and wellness complexes reflects a complex evolutionary process shaped by urban-planning principles, the principles of landscape architecture, and socio-cultural development. The identified features and patterns provide a basis for studying the contemporary stage and defining future directions for medical complexes and landscape architecture. The analysis indicates that the formation and development of health and wellness centres are closely linked to the social, cultural, and architectural development of society. Historical sources and the experience of ancient medical institutions show that the relationship between the natural environment, architectural design, and human health has been significant since antiquity. The bimaristans of the East, historic hospitals in Morocco, the Asclepeia of Ancient Greece, and the valetudinaria of Rome are noteworthy as early typological forms of health and wellness facilities.

The contemporary typology of health and wellness centres should account for their functions, geographical location, service level, and users' needs. Combining preventive and therapeutic care, rehabilitation, sports and wellness, and recreational functions can create a comfortable and effective architectural environment. Design solutions for each facility should be developed in response to local climate and natural conditions, environmental quality, and landscape potential.

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