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АРХИТЕКТУРАСЫ»**

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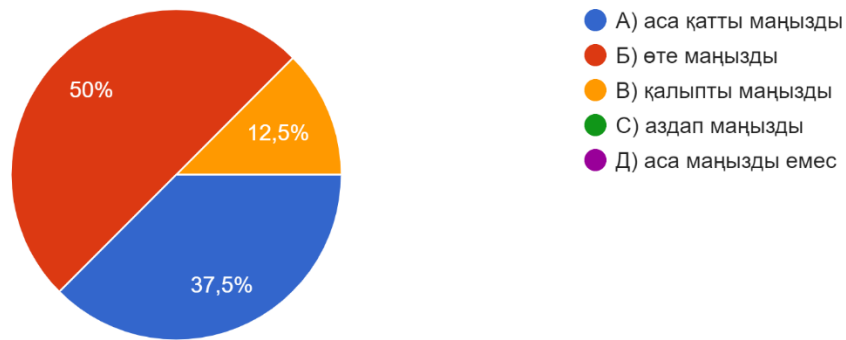
The proceedings are the papers of researchers, doctoral students, undergraduates and students on topical issues of natural and technical sciences and humanities also the results of scientific research in the field of ethnoarchitecture and general problems in architecture and construction.

В сборник вошли доклады ученых, докторантов, магистрантов и студентов по актуальным вопросам естественно-технических и гуманитарных наук, а также результаты научных исследований в области этноархитектуры и общих проблем архитектуры и строительства.

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Сурет.3 Кеңістікте дизайн әсері

Айта келгенде, қоршаған ортаның ерекшеліктері жеке тұлғаның дамуына да, жалпы адамның қалыптасуына да әсер етіп, сол арқылы адамның өзі қалаған бейнеге көтерілуіне, яғни білім алуына жағдай жасайды. Адамды қоршаған объектілерден басқа, оның дамуы үшін жалпы өмір салтын, сондай-ақ адамның басқа адамдармен қарым-қатынасын ұйымдастыру сипатын анықтайтын нақты әлеуметтік-мәдени ортаның маңызы зор.

Қоршаған ортаның әртүрлі факторларының әсерін есепке алудың жеке тұлғаның психикалық дамуының механизмдерін түсіну және оның мақсатты түрде өзін-өзі өзгерту – тәрбиелеу іс-әрекетін ұйымдастыру үшін принципті маңызы бар. Білім беру ортасы – бұл тұлғаның жалпы тұлғасына да, оның жеке қасиеттеріне де қалыптастырушы әсер ету мүмкіндігі бар адамның әлеуметтік-мәдени ортасы.

Кампус өз мәні бойынша қала болып табылатын қазіргі әлемде әрбір аумақтың құрылымымен және жоспарлау шешімімен, дұрыс жеке көзқарас болуымен сипатталады.

Талдау негізінде кампустардың аумағын ұйымдастыру мен модернизациялаудың әр аспектісін жетілдіру өзекті мәселе болып табылады.

Қолданылған әдебиеттер тізімі:

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KEY FACTORS INFLUENCING HISTORICAL AND MODERN PROJECTS OF LOW-RISE HIGH-DENSITY RESIDENTIAL BUILDINGS

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The purpose of this study is to identify a group of main factors underlying the creation of historical and modern projects of high-density low-rise residential buildings and ways to apply them in practice.

Material and research methods. To solve this problem, the paper uses the method of systematic analysis of the most notable historical and modern (built no earlier than 1754) examples of existing low-rise high-density residential complexes around the world and identifies the fundamental features of the design of such facilities. The main factors influencing the architecture of low-rise high-density residential complexes are identified, and the principles of their application in the design of new facilities are formulated. The results of the analysis of existing low-rise high-density residential complexes are divided into urban planning and architectural and artistic characteristics of objects.

Research method: analysis and systematization of information on objects of low-rise high-density residential complexes urban characteristics in the table. 1. The results of the urban planning analysis of the most significant objects for this study are collected. The main features of each low-rise high-density residential development, located in the city are identified, the characteristics of the sites, the presence of significant urban facilities within walking distance, and the principles of using the territory are considered.

Table. 1. Influence of the main urban planning features on the design of low-rise high-density residential buildings

The object name, author, year of construction	Place and location in the city	Plot, area sq.m.	Particular qualities
Silverwood Apartments, Almaty Vilnius Architects (AVA) in collaboration with Parmigiano group December 2020	Almaty, Medeu district, Kaminski plateau. The residential complex is located at the intersection of St. Kerbulak / Olympic, in the private sector.	 S= 20000 sq.m. 10 three-story residential buildings, 55 apartments from 100 sq.m. to 360 sq.m. with free planning.	<ul style="list-style-type: none"> • In winter, during the day, this area is warmer, and in summer, it is a little cooler compared to the city. • 600 m is the secondary school №47. • On the territory of the residential complex there is a Japanese garden, a lobby for residents, a mini-spa. • Steep terrain plays the main role in shaping the composition of architecture. [1]
Townhouse on the street. Nakhimova, 16 Architect: JSC "MAC Almatygorstroy" 2016	Almaty, Bostandyk district, st. Nakhimova, 16 The townhouse is located in a quiet area of Almaty.	 S= 385.4 sq.m. The residential complex presents 3-room and 6-room apartments with an area	<ul style="list-style-type: none"> • The Esentai River flows nearby. • Not far from the house there are several large objects: supermarkets and shops, Esentai Mall shopping center, Esentai park. [2] • A small plot with a limited area, parking is located in the townhouse itself.

		of 75.1 sq.m. and 381.4 sq.m.	<ul style="list-style-type: none"> • Opposite the site is a private sector, high-rise residential buildings on the side.
<p>Donnybrook Quarter Architect: Peter Barber 2007</p>	<p>Eden Way, London, UK The scheme is built around two new tree-lined streets crisscrossing the site, creating strong spatial links with neighboring areas.</p>	 <p>S= 3000 sq.m.</p>	<ul style="list-style-type: none"> • Two hiking trails cut the ensemble into three parts. • Two narrower blocks touch existing structures at the borders of adjacent parcels. • The two streets not only break it down into smaller and more independent elements but are designed to draw in urban life, creating a triangular area that serves as a meeting point at the center of the building. [3]
<p>5-Morgen Dahlem Urban Village Architect: Eller + Eller Architekten WIEL ARETS ARCHITECS 2011-2017</p>	<p>Clayallee 175-177, 14195 Berlin, Germany</p>	 <p>S= 50000 sq.m. Lake area =6700 sq.m.</p>	<ul style="list-style-type: none"> • Located on the shore of an artificial lake, which creates an internal microclimate. • Twenty minutes walk from the Kurfürstendamm. • The residences are clustered on the growing peninsulas and set inside a large landscaped park inspired by the Markische Seenplatte's nature. [4]
<p>The Circus, Bath Architects: John Wood, the Elder, John Wood, the Younger 1754-1768</p>	<p>Bath, Somerset, England</p>	 <p>S= 70 000 sq.m.</p>	<ul style="list-style-type: none"> • Historical ring of large townhouses in the city, forming a circle with three entrances. • The circus is divided into three segments of equal length, in the center of which is a lawn. • Seen from the air, the Circus, along with Queens Square and adjacent Gay Street, form a key shape that is a Masonic symbol. [5]

Conclusions on the table. 1.: The influence of the main urban planning features on the design of low-rise high-density residential buildings:

From the point of view of urban planning characteristics of the selected objects, the following trends are observed:

- Low-rise high-density low-rise buildings serve as a harmonious addition to high-rise buildings and allow the development of territories (Townhouse on Nakhimov St.), which have a complex geological structure, to effectively use public transport systems.

- In high-density conditions, the terraced subtype of residential formations on the relief provides continuous slope development and contributes to the development of urban fabrics unsuitable for construction (Silverwood apartments).

- The sectional principle of organizing plots allows for the highest building density and is recommended for use in historical and central parts of cities (The Circus, Bath).



- The carpet subtype increases the intensity of the use of building space and the level of diversity of the urban environment due to the compact nature of the blocking of residential units.



- Low-rise high-density buildings can be designed both in the center of the city, district and in the suburbs and on the outskirts of the city.

- Playgrounds and space for recreation are located on the site, in the absence of appropriate functional areas are within walking distance.

The results of the analysis of the architectural and artistic characteristics of the aforementioned low-rise high-density residential buildings were collected in Table.2. The main architectural and artistic features of each example are revealed, as well as the influence of the psychology of perception on the architecture of objects.

Table. 2. Architectural and artistic features of low-rise high-density residential buildings

The object name, author, year of construction	Illustration	Architectural and artistic features
<p>Silverwood Apartments, Almaty Vilnius Architects (AVA) in collaboration with Parmigiano group December 2020</p>		<ul style="list-style-type: none"> • The use of wooden panels in facade cladding, from the side of the city street, to fit harmoniously into the surrounding forest. • The eastern facade is lined with white panels, which emphasizes the snowy peaks of the Trans-Ili Alatau. • The complex is located on a slope, which is felt in the tectonics of the composition. [1]
<p>Townhouse on the street. Nakhimova, 16 Architect: JSC "MAC Almatygorstroy" 2016</p>		<ul style="list-style-type: none"> • The townhouse consists of two blocks, it is emphasized by the reduction in the volume of the apartment block. • Public spaces are visually divided on the facade with travertine along the first floor and plaster along the second floor. • The frame of the building is made of monolithic reinforced concrete for seismic resistance. • The French balcony is adorned with black patterned latticework, as are the stairwell and fence. [2]

<p>5-Morgen Dahlem Urban Village Architect: Eller + Eller Architekten WIEL ARETS ARCHITECS 2011-2017</p>		<ul style="list-style-type: none"> • The flats are all unique in their design, with open floor plans and large floor-to-ceiling windows that create a high level of interconnectedness between indoor and outdoor space. • Each house type has its own facade design, which can be made of brick, natural stone, or broom finish plaster. • The multiple building types: apartment buildings, townhouses, and single-family homes. [3]
<p>Donnybrook Quarter Architect: Peter Barber 2007</p>		<ul style="list-style-type: none"> • Buildings rise to three stories on the scheme's busier southern edge, with commercial space on the ground floor. [4] • Terraces and multiple entrance doors create a sense of ownership and the possibility of individualization, while balconies and bay windows overlook the street. [4] • A metric row can be traced in the facade composition (transition from one-story to two-story).
<p>The Circus, Bath Architects: John Wood, the Elder, John Wood, the Younger 1754-1768</p>		<ul style="list-style-type: none"> • Limestone building emphasizing Anglo-Palladian architecture. • The frieze of the Doric entablature is decorated with alternating triglyphs and 525 graphic emblems, including serpents, nautical symbols, devices representing the arts and sciences, and Masonic symbols. [5] • There are three different kinds of columns. The columns of the lower floor are Doric, the second is Roman, and the upper are Corinthian. [5]

Conclusions on table.2.: Architectural and artistic features of high-density low-rise residential buildings:

- The architectural appearance of a high-density low-rise residential building can be both a bright original composition and a completely neutral structure of a typical sample;
- One of the most important elements of this type of housing is the introduction of favorable individually-external spaces, such as patios, terraces, gardens, or balconies.

- The considered examples take into account economic, social and architectural, and urban planning requirements, regarding the year of their design. With the change in social requirements, the functional requirements of certain premises change.

- The analysis of these projects shows that mainly regional architecture with notes of modern architecture is used, this also applies to finishing materials.

- Stepped development scheme was used in the Silverwood Apartments project, which made it possible to optimally use the terrain, create interesting three-dimensional compositions, and diversify the development.

- Windows to the floor are dominant because they have a higher capacity for transmitting sunlight and visually increase the area of the room. They are used in all of the projects that have been analyzed.

Conclusion.

1. At the present stage, the problem of integrating low-rise high-density residential buildings into the urban environment is one of the key ones in the world in general and in Kazakhstan in particular.

2. Existing residential complexes and private houses with a manor territory are located rather chaotically and have no paths to full development. To date, the goal of designing and building low-rise high-density residential buildings, which in turn meet modern requirements, is to solve the above problem.

3. The urban planning factor affects the organization of the functional zoning of the site, as well as, by analyzing all the fundamental components of the residential area, its location in the urban environment, and the infrastructure of low-rise high-density buildings. Furthermore, creating an integrated residential environment that connects low-rise high-density buildings with the public, administrative, and recreational areas to ensure people's safety and comfort is an important aspect of organizing a site of low-rise high-density buildings.

4. The social and functional aspect of the project is also important, as it includes providing the necessary complex functional content for low-rise high-density buildings.

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ТЕХНОЛОГИЧЕСКИЕ АСПЕКТЫ ФАСАДНЫХ СИСТЕМ В ГОРОДЕ НУР-СУЛТАН

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