

The Typology of Kazan Estates: from Origins to Modernity

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Abstract. The article focuses on the study of estates in the city of Kazan during the period from 1850 to 1917. The analysis of historical sources on the development of the city of Kazan, archival materials on the construction of estates was carried out. Maps of different years, plans of the boundaries of cultural heritage sites and aerial photographs were also analyzed. An architectural analysis was carried out to study the architectural features of the manor complexes, their stylistic features and functional purpose. This analysis helps to avoid undesirable architectural and urban contrasts and ensures that the development of the estate harmoniously fits into the environment. The results of the study highlight the distinctive characteristics of manor complexes, which allows for a thorough analysis that will serve as the basis for developing effective restoration strategies and planning new projects. Thus, choosing the optimal layout for residential complexes in modern construction requires an analysis not only of functional needs, but also of the architectural features of the site, the environment, and the preferences of the owner.

INTRODUCTION

Estates are an integral part of the cultural and historical heritage of the city of Kazan. The study of estate architectural complexes provides insights into construction traditions that may be relevant to modern practices. Today, nearly all modern urban single-family homes reflect the features of estate architecture.

An owner of building plot faces such questions as appearance and characteristic before starting construction. To properly define this, a house should meet the definition of an «estate», including not only the main residential building but also other household outbuildings.

The study's timeframe begins in the 1850s and extends to 1917. The commencing date was chosen based on two key events: the introduction of the «Regulations for the Organization of the Provincial City of Kazan» in 1841 and the significant fire of 1842, which led to the destruction of a large part of the city. The endpoint of the study is 1917, when social changes impacted the architectural history.

Understanding the functional typology of estates can serve as a source of inspiration for modern architects when reconstructing and restoring historic buildings or creating new urban architectural projects. Researching the features of estates in the past will help preserve their historical value while adapting them to modern needs.

MATERIALS AND METHODS

Historical sources on the development of the city of Kazan, archival materials on estates construction were used as resources for analysis. Maps from different years, boundary plans for cultural heritage sites, and aerial photographs were also analyzed.

An architectural analysis was conducted to study the architectural features of estate complexes, their stylistic characteristics, and functional purposes.

The research was based on data provided by the State Budgetary Institution «The Center of Cultural Heritage of Tatarstan». This information formed the foundation for studying estates that are considered cultural heritage sites. Extensive literature covering the topics of estate construction was used in this research [1-3].

RESULTS AND DISCUSSION

The estates of the Kazan region form an important part of the cultural and historical heritage of the area. The estate complexes reflect traditional ways of life and the specificities of economic set-up.

The history of the first estates dates to the Middle Ages when they were primarily agricultural and hardly distinguishable from other buildings [4-5].

The modern interpretation of the term «estate» («usad'ba» – russian transliteration of term) encompasses a wide range of meanings, with diverse interpretations in domestic dictionaries and reference books. According to V.I. Dal, the term derives from the word «usada» (transcribed as «usadishche»). In his interpretation, an estate is a landowner's country house accompanied by various household outbuildings, a garden, and a vegetable patch. In official government documents like cadastres and censuses, the most common expressions are not «estate» but «landowner's yard» or «landlord's yard», referring to ownership forms prevailing at the time [6]. Generally, the term «estate» refers to the holdings of Russian nobles and affluent members of other classes from the 17th to 20th centuries, primarily in central Russia [7]. A classic estate typically includes a main mansion, several outbuildings, stables, an ap wing, servant's hall, and other structures. These buildings share a common architectural and layout concept but differ depending on the owner's social status.

The emergence of noble estates dates to the reign of Ivan the Terrible. The formation of the first estates was closely linked to the establishment of the noble class [8]. In the post-war period, the population of Russian nationality was resettled to Kazan, where Tatars mainly lived, respectively, and the new noble class. This significantly influenced the city's architecture and structure, as Russian landowners became integrated into the Kazan landscape.

A significant stimulus for the construction, provision of urban amenities, and decoration of estates came from the Manifesto of Emperor Peter III (1728-1762, reigned from 1761), «On the Liberty of the Nobility», published in 1762. This manifesto granted the nobility, as the ruling class, very broad privileges, releasing nobles from mandatory state service. By that time, nobles held land and serfs as rewards for obligatory lifelong service to the state [9].

During the period of the 1861 Emancipation Reform, estates in Kazan underwent changes. This reform altered the foundation of the noble estate economy, but not all could adapt to the new economic circumstances. Many estates transformed into farms, particularly in rural areas. Many nobles sold their lands and estates to enterprising people, giving rise to merchant estates. Thus, in the history of estate development, three periods of evolution can be identified. The first period covers the 16th and 17th centuries, a time when estates were established as noble landholdings, received as rewards for state service or through purchase. During this time, the noble estate culture flourished and developed. The second period spans the 18th century and the first half of the 19th century, characterized by the granting of ancestral land. The third period encompasses the second half of the 19th century and the beginning of the 20th century, a time marked by economic difficulties arising from the changed socio-economic structure of the country, particularly due to the abolition of serfage, which led to the decline of noble estates and the rise of merchant estates.

Constantly evolving and undergoing significant changes, estate construction follows a long historical development path. Since the city is at the crossroads of East and West and has its own unique cultural layers, estates were divided into Russian and Tatar. Tatar noble and merchant estates were in the Old Tatar Sloboda and the Zabulachye area, while Russian estates were historically centered in the heart of the city, near Ostrovsky, Karl Marx, Gorky streets, and others. In Tatar settlements, the predominant type of estate combined residential and commercial functions. The Zabulachye and Zakabanye areas were predominantly populated by Tatars. Kazan historian E. Belov wrote in 1913 that Kazan was sharply divided into two parts – European and Muslim. Each zone had its own distinct social and domestic arrangements [4]. Certain stable elements and characteristics of the Tatar urban estate can be identified. For example, despite the main building of the estate facing the street, its separate entrances were located deeper into the courtyard. The prominent entrance was typically for men, while a more concealed entrance was for women. Tatar urban estates had a unique way of integrating into the urban environment and were known for dense construction, as a single lot often housed numerous wooden wings where the married sons of the family head lived [9].

The typology of estates is also viewed from the perspective of their location: rural and urban. Rural estates are situated outside city limits, often in the countryside or suburbs, and typically have larger areas, allowing for parks, gardens, and alleys. Urban estates, due to limited space, may have smaller plots, with more constrained landscape design. However, these differences are not definitive; some estates may have features of both types.

Estates have also been studied extensively in terms of functional-spatial organization and composition [10]. An estate typically includes a representational area (main house, ap wing, ceremonial courtyard), a service area (stables, barns, cellars, kitchen wings, greenhouse, smithy, factory buildings), and a landscaped area (garden, park, small architectural features) [11]. The size of the estate complex often depended on the owner's financial status: affluent, moderate, and poor for peasants; small, medium, and large estates for the nobility. Notably, affluent peasant and merchant estates tended to «copy» features of aristocratic residences, and the closer these estates were to the city, the more pronounced this tendency became [11].

An integral part of an urban estate is the courtyard or «courtyard area» [12]. In the city, the main house is located along the street's building line, with a wing attached, and service buildings surrounding it. The preservation of these service buildings is an important aspect of historical and cultural heritage [13], as they reflect the traditions, lifestyles, and economic practices of a particular era.

The term «noble estate» comes from the owner's social status, indicating their membership in the nobility (Fig. 1).



FIGURE 1. Types of estates according to the social status of the owner (illustration by the authors).

Typically, such estates were large and luxurious, often featuring a grand representative mansion, parks, alleys, fountains, and other luxurious elements. The primary purpose of noble estates was to provide housing for the upper class, and they also served as places for relaxation, hosting events, and managing economic activities.

Merchant estates belonged to merchants, representatives of the commercial and entrepreneurial class. Merchant estates typically included spaces for commerce, workshops, and warehouses. Often, the ground floors were dedicated to commercial activities, while the upper floors served as residential areas. Merchant houses often rivaled noble estates in size and architectural features.

Bourgeois estates belonged to members of the bourgeois class – the urban middle class. The bourgeoisie owned smaller estates, which provided them with agricultural products for their own use. The architecture of bourgeois estates typically featured more modest and practical elements, reflecting the everyday life of the middle class.

Peasant estates belonged to peasants in villages and rural settlements, as well as within city limits. A typical residential house had one or more rooms, with a stove for heating and cooking. A peasant estate often included various outbuildings for agricultural purposes, such as barns, granaries, storage sheds, livestock stalls, cellars, etc. These outbuildings served to store food, agricultural equipment, and animal feed.

Depending on the layout of the property, urban estates can be categorized (Fig. 2):

1. Chaotic development, where buildings on the plot are not aligned to any specific grid. This type of layout is mainly used in rural estates where there are large areas of land. In cities, where land is more valuable and plots are smaller, it's challenging to use a chaotic layout.
2. Axial development, where buildings are centered on the property. Organizing construction along a central axis can optimize the use of space, creating convenient pathways and functional zones. This arrangement can help maintain the necessary distances between buildings on smaller plots.
3. Single-row development, where the main house and auxiliary buildings are located along one of the boundaries of the plot. This type of layout is commonly seen in Kazan. It allows for efficient use of space, especially when the plot is long and narrow. It also provides more room for landscaping.
4. Two-row development, where the main house is on the boundary facing the street, and other buildings are located along other sides of the property. This approach creates a certain structure and symmetry on the plot,

with buildings aligned to a grid. This is also a common type of layout in Kazan, as it provides a functional arrangement of buildings and allows for designated zones.

5. Perimeter development, where buildings are placed along the boundaries of the plot. This type of layout is mainly used when there are many auxiliary structures. With buildings along the perimeter, the central space is left free for landscaping.

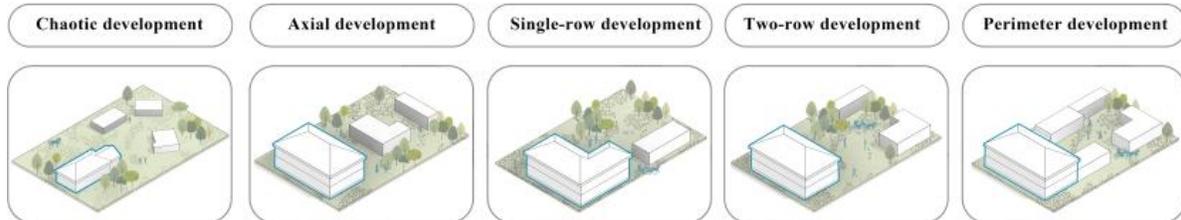


FIGURE 2. Types of estates by site layout design (illustration by the authors).

The main house on the plot can have various placements (Fig. 3), depending on the plot's shape, the surrounding environment, its location within the city's structure and road network, the owner's preferences, and functional requirements. Houses were usually built along the "building line," which made the urban space more structured and organized. Additionally, since urban estates were often merchant-owned during this period, there was a need for access to shops or storefronts, which were often located within the residential building. Building along the road also allowed for more efficient use of land, with a beautiful and wealthy-looking facade facing the street, and a courtyard with auxiliary buildings behind it.

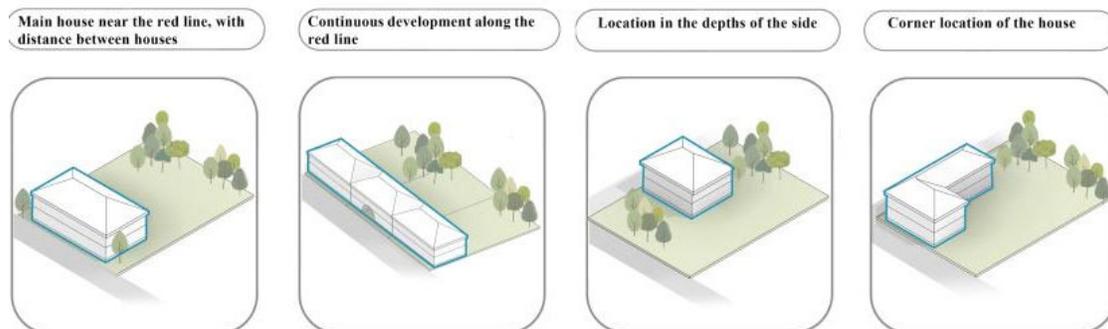


FIGURE 3. The Placement of the Main House Relative to the Plot (illustration by the authors).

The classification based on the placement of the main house relative to the plot is as follows:

1. Main house near the red line, with distance between houses. This arrangement emphasizes the facade's grandeur and usually has the main entrance facing the street. The entrances to the property are typically at the plot's corners or on the opposite side. This type of layout is often found in merchant estates, allowing quick access to the commercial services of the mansion's owner.
2. Continuous development along the red line. This is a more economical option where the main facade is lavishly decorated, but other buildings are constructed near each other. This layout emerged due to limited land plots, where every square meter of land was valuable. This type of development creates a compact and structured street layout.
3. Location in the depths of the side. A type often found in noble urban estates. The main house is set back from the main street, but it may face a side street. This setback allows for a garden in front of the house, creating a cozy space and reducing noise from the main street.
4. Corner location of the house. The main house is situated at the intersection of two roads, providing two main facades facing the streets. This layout is driven by the property's unique characteristics.

According to the list of cultural heritage sites, there are 37 estates in Kazan. Among them, 15 are noble estates, and 22 are merchant estates, which in turn are subdivided into Russian and Tatar [14].

Let's consider estates dating from the period between 1850 and 1912. In total, 18 can be identified in the city of Kazan. Since this period marked the decline of noble estates, there are only 2 in Kazan.

1. The Sandecky Estate (64/29 Karl Marx Street). Today, it houses the State Museum of Fine Arts of the Republic of Tatarstan. The complex was built in 1906, designed by the architect F. R. Amlong. It is in the third police district «Prestigious side». It stands as an outstanding example of 20th-century noble estate construction. The complex includes a mansion, an annex, a park, and a fenced enclosure. The park is in the southern part of the site, with trees and a circular fountain on the southern side of the mansion.

2. The Poduraeva-Stakheev House (10 Lobachevsky Street). Currently, it houses the Union of Composers of the Republic of Tatarstan. The building was constructed in 1906, designed by the architect F. R. Amlong. The estate comprises a main house, an annex, a garden, and a fence. It is in the first police district «Kazansky Posad» along Bolshaya Krasnaya Street.

Next, let's consider merchant estates from the middle 19th to the early 20th century. There were more merchant estates in Kazan than noble ones, reflecting a larger merchant class, which was thriving during this chosen period. Kazan has a total of 15 merchant estates.

3. The House of K. Ya. Kalinin-E. V. Zhadina (74 Bauman Street). It was built in 1887 by the architect P. E. Anikin. Located in the first police district «Kazansky Posad», along Bauman Street.

In the second half of the 19th century, there were two estates on this site. The right side of the house was an annex to the estate of the merchant K. Ya. Kalinin, constructed in the 1880s by architect P. E. Anikin. The left side belonged to the children of the merchant A. P. Sapugoltsev. Their site in the second half of the 19th century had a two-story stone house and an annex along the street's red line. In 1911, the owner of both properties became the merchant F. F. Zhadin, who owned them until 1917. He united the three buildings into one [1]. By the mid-19th century, the house had a classic layout: service rooms were on the first floor, and residential spaces were on the second floor, arranged in an enfilade pattern.

4. The Sukhanov Estate (31 Ulyanov-Lenin Street). This is a Russian bourgeois estate built in the 19th century, located in the fourth police district «Na gorakh i ovragakh». The composition included a main house and an annex, though the annex is now lost. The main house is a two-story wooden building with separate entrances for each floor. The house has a corner location with two street-facing facades. Today, it is a two-apartment residential building, with the entrances located in a wooden annex on the left side.

5. The Engineer Anosov Estate (50 Ulyanov-Lenin Street). This is a Russian merchant estate in the fourth police district, «Na gorakh i ovragakh». It was built in the early 20th century by the architect P. P. Golishev. The building is a single-story structure erected on First Hill for Nadezhda Anosova, the wife of the local wealthy mechanical engineer Anosov [2]. Previously, there was a simple wooden house on this site. The complex's layout included a residential house, an annex, and a trading shop. The residential building is single-story with a brick semi-basement, representing a merchant mansion in an eclectic style, with the main facade designed in a classical style. To its right was a stone shop, with the central part of the facade designed to match the residential building. The two buildings were connected by wrought iron gates. Only the residential house has survived to this day, though its internal layouts have been changed to accommodate a kindergarten that was housed there.

6. The Sabitov Estate (8 Marjani Street). This is a Tatar merchant estate with buildings from the second half of the 19th century to the early 20th century. The architect is unknown. The owner was Khamit Sabitov, and the estate complex included a main house, an annex, and service buildings. It is in the fifth police district, «Zakabanye».

The main house and annex are situated along the street's red line, while the service buildings are at the back of the lot. The service buildings feature overhanging galleries. Previously, the main house and the annex were connected by gates that enclosed the inner courtyard.

The main house is a two-story rectangular building that has its long facade along the street. The annex, also two stories and partially made of stone, is located to the left of the main house. It is an example of an urban house designed with a model facade from the first half of the 19th century [3]. The annex, like many rural houses of the Tatar style, has a facade facing the street and extends onto the property. To the left of the house is a one-story stone shop with an arched doorway and iron doors. This architectural element is designed in a classical style and is a historical monument.

7. The Okonishnikov Estate (49 Karl Marx Street). This is a Russian merchant estate built in the 19th century in stylized Baroque and Rococo forms. The architect is unknown. It is in the third police district, «Prestigious Side». The estate's layout includes the main residential house, a carriage barn, a fence, and an annex. The estate is situated in the upper part of the city, in the Arsky Field area. The main house has a terrace on the southern side with two staircases leading into the garden. There is a veranda attached to the second floor on the eastern facade.

8. The Y.F. Shamov House (25 Ostrovsky Street) was built for the Old Believer Yakov F. Shamov in 1899. It is located in the second police district, known as «Zabulyachye». The building's main entrance was on the facade facing the street. This two-story brick structure, left unplastered and standing apart, had a main entrance opening onto the street and formed an architectural ensemble with the adjacent building. The two buildings were connected by a stone archway. The courtyard and the house itself served as the main office for the owner. Around the courtyard, there were red-brick storage facilities with sturdy iron doors, and within these storage facilities were deep cellars.

9. The Tikhomirnov Estate (18, 20 Ostrovsky Street). A Russian merchant estate. This estate was built in the second half of the 19th century based on a design by architect P.I. Romanov. It is in the second police district, «Zabulyachye». The layout consists of two residential buildings and a commercial shop, and it is considered an architectural monument in the brick eclectic style. The estate belonged to merchant Alexander Tikhomirnov. The first floor of House № 18 was used for business purposes, while the second floor housed formal rooms with high ceilings. House № 20 was constructed in the mid-19th century, with the first floor made of stone and the second floor made of wood. In 1890, the wooden floor was replaced with brick, and a three-story addition was built on the courtyard side, connected to the main estate building by a second-floor walkway. The building is positioned along the street's red line and extends into the depth of the courtyard. The left side of the facade has a fence with a stone base, while on the right side, there is a single-story stone porch with formal doors and an archway for carriages.

10. The Shakir-Soldat Estate (16 Tukaevskaya Street). A Tatar merchant estate. Constructed between 1895 and 1898. The architect is unknown. Located in the second police district, known as «Zabulyachye». The estate's ensemble included the master's residential house, an income-generating building, and extensive courtyard structures made of white stone. These included stables, a carriage house, a bathhouse, as well as wings for servants and cold storage facilities [3]. The estate occupied a substantial plot of land adjacent to the Usmanov Mosque. The main residential building, made of brick, was a two-story structure with an asymmetric plan and facade. The first owner of this house was Shakirzyan Shamsutdinov, whose military success in his youth led to the building being known as the «House of Shakir-Soldat».

11. The Kushaev Estate (5 Kayum Nasyri Street). A Tatar merchant estate. The wing was constructed in 1856 by architect A.I. Peske, initially as a semi-stone main residential house, and the main residential house was completed in 1862 by P.V. Tikhomirnov, with the auxiliary buildings in 1870 by architect A.I. Annenkov [3]. It is in the fifth police district, known as «Zakabanye». The estate consisted of a two-story main house with an attic third floor, a wing, and two-story brick auxiliary buildings. The house is located at the boundary of the plot along the red line of the street, facing the street with its main facade. A brick fence with gates connects it to the wing. The stone auxiliary buildings are positioned along the perimeter of the plot. The multi-angular structure is joined by a later addition with a street entrance, created through a break in the fence, and a veranda above it.

12. The Apakov Estate (Shamil's House, 74 Tukaya Street). A Tatar merchant estate. The estate's grounds included the main house, a wing, a garden, auxiliary buildings, storage facilities, and a bathhouse with a laundry. It was reconstructed in the early 20th century. Located in the fifth police district, known as «Zakabanye».

The architectural style of this building combines elements of eclecticism and national romantic modernism. Shamil's House is a notable landmark in the Old Tatar Sloboda and a significant cultural heritage site of regional (republican) importance.

13. K. Nasyiri Museum-Estate (35 P. Kommuny Street). A Tatar commoner estate. The composition of the estate includes a house with a gate and a garden. The house was built in the second half of the 19th century and belonged to M. Husainov, the muezzin of the «Galeev Mosque». Located in the second police district, known as «Zabulachye». The small semi-stone residential house is situated with its gable facing the street. The main rectangular structure of the house extends into the depth of the plot. The lower floor was likely used for utility and service purposes, while the upper floor was residential. The estate had a fruit and berry garden where various structures, a summer house, a small house near the gate, and a gazebo were located.

Some of the old courtyard layout has been preserved: the position of the gates, wicket, gazebo, entry doors, and pedestrian pathway. The courtyard area and museum garden are an integral part of the museum's exhibition.

14. Saidashov Estate (63 Narimanova Street). A Tatar merchant estate. The construction period dates from the 19th to the 20th centuries. Located in the second police district, «Zabulyachye». Built in 1880 by architect P.I. Romanov for A.Ya. Saidashov. In 1882, the same owner constructed a two-story brick utility building with residential spaces (also by architect P.I. Romanov), with the facade facing Narimanova Street. The main house is a type of urban mansion with a symmetrical composition. It's a two-story house with a mezzanine third floor from the courtyard side, square in plan. The house's entrances are from the courtyard.

15. E.A. Chepurin's House with a Wing (58 Bolshaya Krasnaya Street). An urban estate from 1906, consisting of the main house and a wing, both facing the red line of development. Located in the third police district, «Prestigious

Side». The main house was built according to a design by L.K. Khrshchonovich for engineer Chepurin. The house is a two-story brick structure with a semi-basement level, square in plan. The mansion is from the late eclectic period with Victorian-style (pseudoclassical) decoration. The facade was restored in 2012.

16. The Makarov Merchants' Estate (40 Peterburgskaya Street). The estate of Kazan merchants Yegor Nikolaevich and Arkhip Yegorovich Makarov was developed in the 1870s-1880s. It is in the fourth police district, known as «Na gorakh i ovragakh». Today, it consists of a two-story house built in the 1870s, a building with brick storage areas, and one-story brick utility buildings constructed in 1879 by architect M.I. Semakin. The two-story brick building has its entrance from the park side. The residential house is in a brick eclectic style with pseudoclassical motifs. A distinctive feature of the house is a richly decorated cornice inspired by Renaissance architecture.

17. D.N. Manakov's Estate (42 Moskovskaya Street). The urban estate is situated on a small plot. It is in the second police district, known as «Zabulyachye». Currently, the complex comprises a two-story house with a mezzanine level, two-story utility buildings, and a stone fence with gates (the gate panels are missing). The main house has a rectangular layout, and its street-facing facade is divided into three sections. Along the eastern boundary of the plot are two-story stone utility buildings. Only the round stone pillars (probably with conical tops) remain from the original gate. This architectural ensemble represents a unique example of an urban estate from the second half of the 19th century, with the facades of the main structures designed in a style of national-romantic eclecticism.

Estate structures are important elements of the cultural and historical heritage of Kazan.

Before designing an estate, layout or conducting restoration work, it's crucial to consider the urban context, which includes analyzing the estate's location within a city block, the placement of buildings and structures on neighboring plots, their architectural and spatial design, and the approach orientation to the estate, as well as the external landscaping of neighboring estates along the street. This analysis helps avoid undesirable architectural and urban design contrasts and ensures that the estate's development fits harmoniously into the surrounding environment.

The research findings highlight the distinctive characteristics of estate complexes, enabling a thorough analysis that informs the development of effective restoration strategies and new project planning. It was noted that estates have traditionally been classified into Tatar and Russian categories, with distinguishing features such as the owner's ethnicity and their location in specific districts of Kazan (Fig. 4).



FIGURE 4. Location of estates relative to the districts of Kazan (illustration by the authors).

However, even in the past, there was a gradual shift away from the concept of districts belonging to specific ethnic groups, and today, estates are no longer classified by location. The only differences that can still be observed relate to cultural aspects and spatial designs of the main residential building based on specific requirements and needs.

When examining the typology of estates in terms of their location, suburban and urban estates can be identified. This aspect remains relevant in contemporary construction since dense urban development limits the potential for many structures, and it can be challenging to create an estate with an agricultural focus in a city setting.

In modern construction, the choice of architectural-landscape design for urban estates plays a significant role in creating a harmonious environment. The planning layout can be chosen based on the site's characteristics.

It's also important to consider the placement of the main house on the estate. Having the main house on the building line with spaces between buildings is often found in merchant estates, providing quick access to commercial services. In modern construction, positioning the building on the building line can help align with the urban layout of the street.

Therefore, selecting the optimal layout for estate complexes in modern construction requires analyzing not only functional needs but also the architectural features of the site, the surrounding environment, and the owner's preferences.

CONCLUSION

In the 19th and 20th centuries, estates formed a significant part of Russia's cultural framework. The results of research help identify the unique features of estate complexes and conduct an analysis to determine the possibilities for their preservation and future use, as well as to apply this knowledge to modern construction. This is important because estates play a key role not only in preserving historical memory but also in shaping space; they are a symbol of the cultural wealth and diversity of the city of Kazan.

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