

Russian City in Siberia of the 17th and 18th Centuries: Stages of Formation and Typology of Buildings in Yeniseisk

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ABSTRACT

The formation of Russian fortresses and settlements in Siberia of the 17th and 18th centuries has been little studied. Based on archival documents, the typology of military objects, residential and household buildings in the first Russian city of Central Siberia – Yeniseisk is revealed. The process of forming the architectural and planning structure of the Yenisei Ostrog is considered. The planning features of urban courtyards – the main structural cells of Siberian settlements-are defined. The architectural aspects of construction of wooden residential and household buildings in the first Russian cities of Siberia are revealed. Graphic reconstruction of urban development objects has been completed.

Keywords: Planning history, Siberia, History of urban construction, Russian fortress cities, Wooden architecture, Yeniseisk.

1. INTRODUCTION

In 2019, Yeniseisk noted celebrate its 400th anniversary. It is the first Russian city in Central Siberia, which was founded in 1619. In the 17th and 18th centuries, a waterway ran through Yeniseisk, connecting the Russian state with the new Eastern territories. However, the architectural and town-planning chronicle of Yeniseisk itself remains incomplete. Many documentary sources about the initial period of construction of the city have not been identified and studied. The process of forming Yeniseisk as a military fortress, covering the 17th and 18th centuries, allows us to trace in sufficient detail the identified documents, stored in the Russian state archive of ancient acts.

2. STAGES OF FORMATION OF THE FIRST RUSSIAN CITY ON THE YENISEI RIVER

In the 17th century, the main Russian settlements on the banks of the largest Siberian rivers Ob and Yenisei were wooden fortresses, which were called 'Ostrog' (after the type of fortress walls made of a stockade of pointed logs). One of them was the Yenisei 'Ostrog'. Documentary descriptions of the fortress, built in 1619 on the left bank of the Yenisei by a Russian military detachment led by the 'son of the boyar' (the social layer in Russia of the 17th century) Peter Albychev and the 'Cossack' (military person) Cherkas Rukin, remain unidentified to this day. According to the 18th-century historian G. F. Miller, 'at first it was only a small quadrangular Ostrog' [1].

The first expansion of the fortress was associated with the 'voivode' (military and administrative chief) Yakov Khripunov. He reported to Tsar Mikhail Fyodorovich: 'I came to Yeniseisk in 1623; the *Ostrog* was all rotten and fell down; he set up a new *Ostrog* and added ten *sazhens* in all directions to the old *Ostrog*; the *Ostrog* and the towers were strongly fortified; on those towers *raskat* did' [2]. In the 17th century, the main measure of length was 'sazhen' (Russian unit of length measurement), equal to 2.16 meters and containing three 'arshin' (Russian unit of length measurement – 72 cm). The 'raskat' was a wooden platform for the placement of the cannons.

In 1626 'voivode' Andrey Oshanin wrote about the buildings of this 'Ostrog' in Tobolsk: 'In the Yenisei *Ostrog* 2 towers with gates; on one tower *raskat*; there's a gate on the wall; at the corners of the *Ostrog* instead of towers there are two *izba*; the *raskat* are built on them' [3]. The 'izba' differed from the battle tower in that its wooden frame had a residential heated room. According to the 'voivode', there were military men in the fortress in the number of two 'atamans' (military leader), five centurions and 105 'streltsy' (a military man with a firearm).

In a petition to Tsar Mikhail Fedorovich dated 1626, 'voivode' Andrey Oshanin reported on the first two wooden churches built in Yeniseisk. The 'voivode' asked to send icons, Church books and bells to the built churches [4].

The humid climate, frequent floods and fires brought the wooden Yeniseisk to a dilapidated state. For example, in 1647, 'voivode' Fyodor Polybinus informed Tsar Alexey Mikhailovich that when taking the fortress under his leadership, he found destroyed fortifications. This is the first identified source that provides information about the size of the Yenisei fortress of the 17th century. 'Around that *Ostrog* two hundred *sazhens*; it is seventy-four *sazhens* long in the middle of the *Ostrog*; transverse size at the upper end of the twenty-one *sazhen*; at the lower end the cross size is eighteen *sazhens*' [5].

In modern units of measurement, the perimeter of the walls is $2.16 \text{ m} \times 200 \text{ s} = 432 \text{ m}$; the length of the fortress along the middle line is $2.16 \text{ m} \times 74 \text{ s} = 159.84 \text{ m}$; the width at the upper end, that is, upstream of the Yenisei, was equal to $2.16 \text{ m} \times 21 \text{ s} = 45.36 \text{ m}$; on the lower, down the river – $2.16 \text{ m} \times 18 \text{ s} = 38.88 \text{ m}$.

In the early 1650s, under 'voivode' Afanasy Pashkov, the Yenisei 'Ostrog' was rebuilt. The size of the wooden fortress increased and new towers were built. However, researchers have not been able to identify archival documents that would describe information about the construction work itself, which is one of the mysteries of the history of Yeniseisk. In the lists of city buildings for the second half of the seventeenth century, it was repeatedly pointed out that 'the Yenisei *Ostrog* is the building of voivode Afanasy Pashkov, and the *Ostrog* has six passing towers and two deaf towers' [6].

By the middle of the 17th century, residential buildings of Yeniseisk went beyond the walls of the fortress, where the 'Posad' (trade and craft part of the Russian city) began to form. In 1667, under the 'voivode' Kirill Yakovlev, new fortifications were built, located above the old 'Ostrog' beyond the Mill River. They had a length of eight hundred and twenty five 'sazhens' and six towers. Graphic reconstruction of the system of fortifications of Yeniseisk in 1667 was performed by the authors in a previously published article [7]. The borders of the big and small 'Ostrog' were preserved until the end of the 17th century, but the fortifications gradually deteriorated. For example, the inventory of 1699 read: 'The Yenisei *Ostrog* has eight towers; it has rotted and fallen apart from many years' [8].

In the first years of the 18th century, the defensive fortifications of Yeniseisk still retained the external features introduced from the last century. The city list for 1702 states: 'The Yenisei *Ostrog* has eight towers, including six towers with passing gates, two towers are deaf; the length of the *Ostrog* is six hundred and eighty-five *sazhens*' [9].

On September 19, 1703, a large fire occurred in Yeniseisk, in which many buildings of the wooden city were destroyed, including the 'old *Ostrog* of five hundred and six *sazhens*; five towers were burned' [10]. In 1704, most of the fortress towers and walls that were burned down in a fire were restored to their former planning boundaries. In the inventory for 1705 it is written: 'The new Yenisei *Ostrog* has eight towers, including three old towers and five new towers; the length of the *Ostrog* is six hundred and eighty-two *sazhens*' [11].

In 1733, according to the historian G. F. Miller, the fortifications of Yeniseisk were updated [12]. About the results of construction work and the state of the fortress, there is information in the inventory of Yeniseisk for 1741.

‘The city of Yeniseisk is located on the Yenisei river. The city is surrounded by a new *palisade* (of vertical logs); the length of the *palisade* is one thousand six hundred and forty-three *sazhens* and a half. In the new *palisade*, seven towers were built, including five towers with passing gates. The old *palisade* is dilapidated, one hundred and ninety-nine *sazhens* and a half long. The old *palisade* has four towers; three with drive-through gates’ [13].

In the second half of the 18th century, Yeniseisk lost the significance of a military fortress, the buildings of which continued to disappear. According to documents from the 1770s, the small town was enclosed by a wooden ‘*palisade*’ with towers, which had a length of 250 ‘*sazhens*’. ‘The *palisade* fell apart long ago, and there are only three towers. Beyond the borders of the city there is a *palisade* with towers; the *palisade* has fallen out in many places, and there are six towers’ [14].

In the topographical description of the Tobolsk Viceroyalty, compiled in 1790, it was reported that in Yeniseisk ‘there are no fortifications near the city, although until 1778 there were on three sides a *palisade* with nine wooden towers, but part of the dilapidation, and part of the former great fire burned out’ [15].

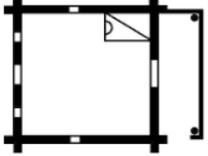
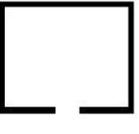
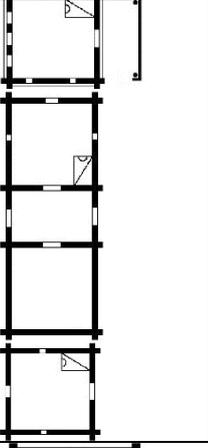
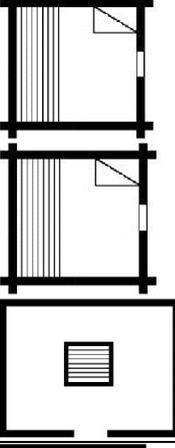
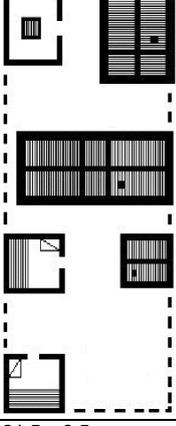
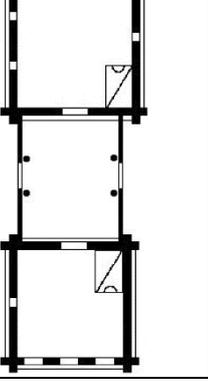
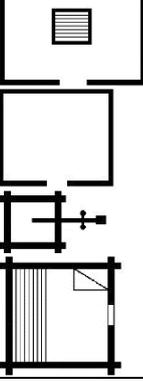
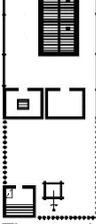
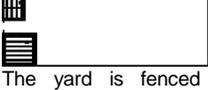
At the turn of the 17th and 18th centuries, there were constructive and compositional methods of building Siberian wooden fortresses, based on the age-old traditions of Russian architecture and proven by decades of fighting in new conditions. The Yenisei ‘*Ostrog*’ included in its three-dimensional composition most of the characteristic elements of the Siberian defense architecture. This is the choice of the location of the fortress in relation to the large and small rivers, a type of fortress walls that are being built quickly, square-plan log towers covered with four-pitched roofs. Therefore, Yeniseisk became a model for the construction of new fortresses on the Eastern borders of the Russian state.

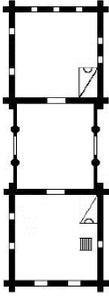
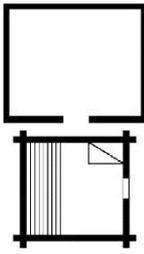
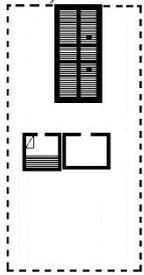
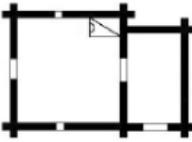
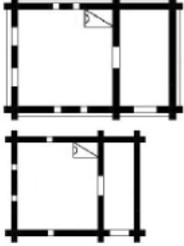
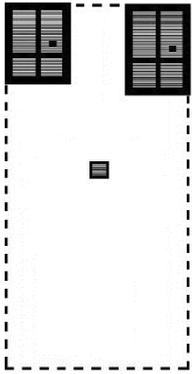
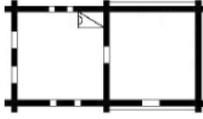
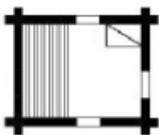
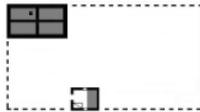
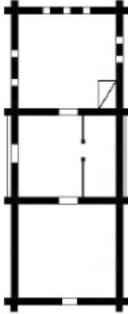
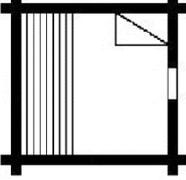
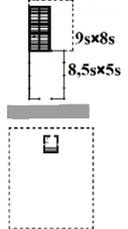
The study was the first to reconstruct the historical picture of the formation of Yeniseisk as the first Russian fortress in Central Siberia. However, the features and typology of residential buildings of the first Russian cities in Siberia, including Yeniseisk, remained poorly studied.

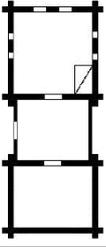
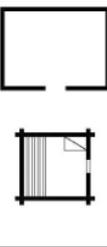
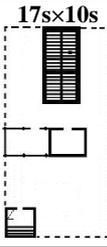
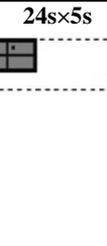
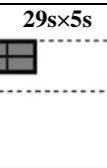
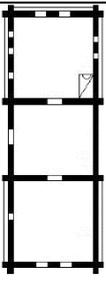
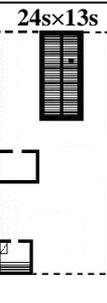
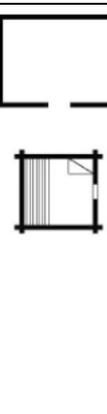
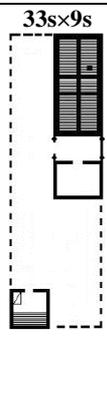
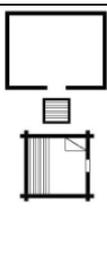
3. PLANNING AND CONSTRUCTION OF CITY COURTYARDS OF YENISEISK AT THE TURN OF THE 17TH AND 18TH CENTURIES

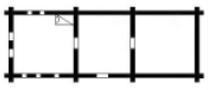
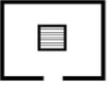
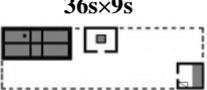
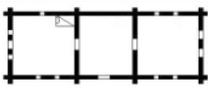
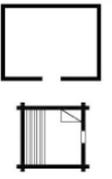
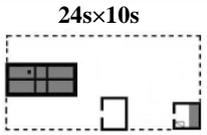
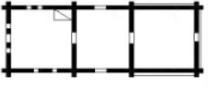
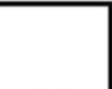
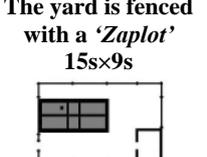
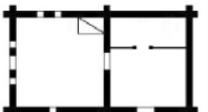
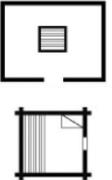
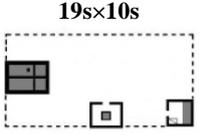
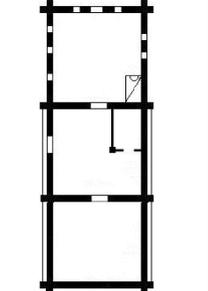
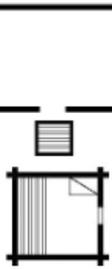
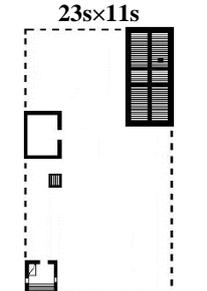
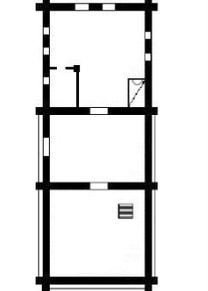
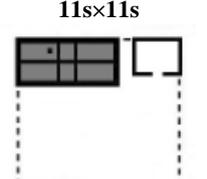
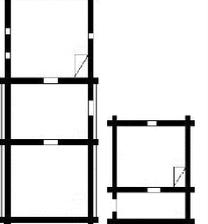
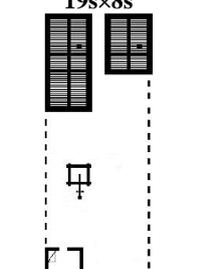
A unique archival document allows us to judge the residential buildings of the first Russian cities in Siberia – ‘Census book of Inns of Yeniseisk’, compiled in 1704 [16]. It describes residential and household buildings located in 33 courtyards on the territory of the city, the owners of which were ‘*Posadsky*’ people, ordinary foot ‘*Cossacks*’, artisans, as well as the ‘*son of a boyar*’ (one yard). The value of the census book for our research is that it indicates the size of courtyards and vegetable garden, the types of houses and household buildings, their sizes, as well as building materials and partially construction techniques. For example, let's give an excerpt from the text of the book containing a description of one of the city's courtyards: ‘There is a residential building in the courtyard – a new *izba* three *sazhens* long without a *arshin*; in front of the *izba* there is a *seni* (entrance room in the house), which are made of *Drani* (split boards); in the same courtyard the old hay barn; the yard is nineteen *sazhens* long and five *sazhens* across’ [17]. Information about the typology of ordinary buildings in Yeniseisk, given in the census book, was systematized in the "Table 1" and ("Figure 1") (*a description of the old terms is given in the following paragraph*). Graphic reconstruction of the layout of objects, performed by the authors, reveals the features of residential and household buildings united by courtyard spaces.

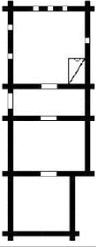
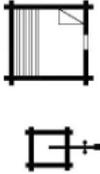
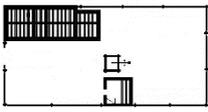
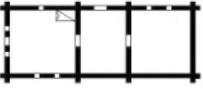
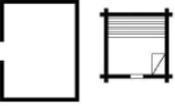
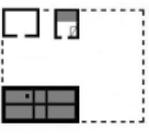
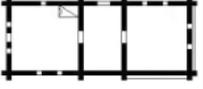
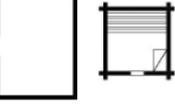
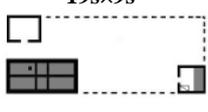
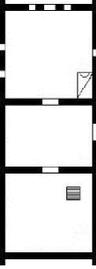
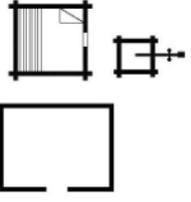
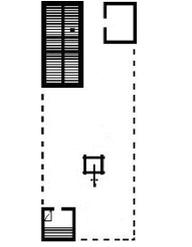
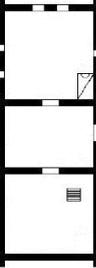
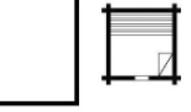
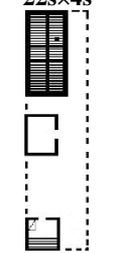
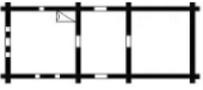
Table 1. Typology of yard buildings of the city of Yeniseisk in 1704

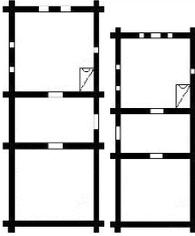
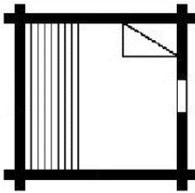
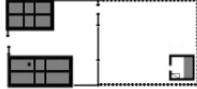
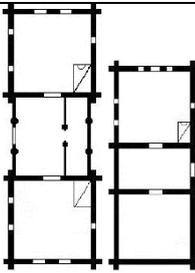
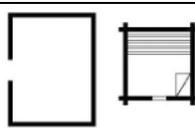
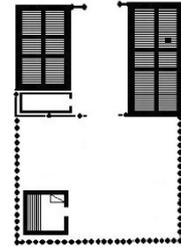
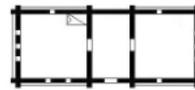
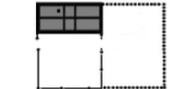
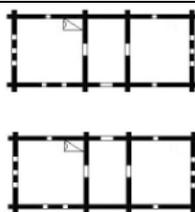
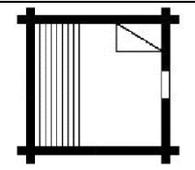
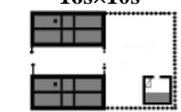
№ yard	Type of residential buildings and their number in courtyards	Type household buildings and the number of them in the yards	A schematic plan of the buildings		Dimensions and layout yard's
			residential	household	
1	2	3	4	5	6
1	A 'izba' three 'sazhens' long without a 'arshin'; in front of the 'izba' there is a 'seni', which are made of 'Drani'	In courtyard hay barn			19 'sazhens' x 5 'sazhens' 1 'arshin' 
2	'Gornitsa' on the 'podklet' two 'sazhens' and a 'arshin' long; in front of the 'Gornitsa' there is a 'seni', which are made of 'Tesa'. 'Izba' two and a half 'sazhens' long; in front of the 'izba' there is a 'seni'; in front of the 'seni' there is a 'Klet' two and a half 'sazhens' long. 'Izba' one and a half 'sazhens' long	In the yard there is a bathhouse two 'sazhens' long. Bathhouse in the vegetable garden. In courtyard hay barn; under the hay barn is a cellar			19sx7s1a 
3	'Gornitsa' on the 'podklet' three 'sazhens' long with a 'arshin'. A 'Gornitsa' is built behind the front 'Gornitsa' two 'sazhens' and a 'arshin' long. Between the 'Gornitsa' there is a 'seni', which are made of 'Tesa'; three 'sazhens' long and two 'sazhens' across	In the yard there is a cellar three 'sazhens' long; above the cellar is a barn. There is a cattle shed in the yard. In the vegetable garden well, bathhouse two 'sazhens' long.			21,5sx6,5s  The yard is fenced with a 'Zaplot' and the vegetable garden with a 'palisade'
4	'Izba' two 'sazhens' long. 'Izba' three 'sazhens' long		 		26sx6,5s  The yard is fenced with poles

5	<p>'Izba' three 'sazhens' long. Behind the 'izba' is another 'izba' three 'sazhens' long. Under the 'izba' cellar two 'sazhens' long. Between the 'izbas' of the 'seni' three 'sazhens' long</p>	<p>Barn for hay. A bathhouse two 'sazhens' long</p>			<p>18,5s×10s</p> 
6	<p>'Izba' two 'sazhens' and a 'arshin' long. In front of the 'izba' there is a 'seni' two 'sazhens' long; across a 'sazhen' and a half</p>				<p>17s 1a × 7s</p> 
7	<p>'Izba' three 'sazhens' and a 'arshin' long. Under the 'izba' the barn; Under the other half of the 'izba' is a basement. In front of the 'izba' there is a 'seni'. Under the 'seni' of the 'Klet'. 'Izba' three 'sazhens' long. At the 'izba' the 'seni' is a 'sazhen' long</p>	<p>In the vegetable garden there is a cellar two 'sazhens' long</p>			<p>18s 1a × 13s</p> 
8	<p>'Izba' three 'sazhens' long. In front of the 'izba' there is a 'seni' made of logs, three 'sazhens' long</p>	<p>Under the 'seni' is a cattle shed. In the yard there is a bathhouse three 'sazhens' long</p>			<p>23s×11,5s</p> 
9	<p>'Izba' three 'sazhens' long. In front of the 'izba' there is a 'Klet' and a 'seni' five and a half 'sazhens' long. Storeroom in the 'seni'</p>	<p>Under the 'seni' is a cattle shed. In the vegetable garden bathhouse three 'sazhens' long</p>			<p>The yard is fenced with a 'Zaplot'</p>  <p>9s×8s 8,5s×5s</p> <p>vegetable garden land 16s×13s</p>

10	<p>A 'izba' three 'sazhens' long without a 'arshin'. In front of the 'izba' there is a 'seni' two 'sazhens' long. In front of the 'seni' there is a 'Klet' two 'sazhens' long.</p>	<p>Barn for hay. In the vegetable garden bathhouse two 'sazhens' long</p>			<p>17s×10s</p> 
11	<p>A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'izba' three 'sazhens' long. Between the 'izbas' of the 'seni', which are made of 'Drani'</p>	<p>In the vegetable garden bathhouse two 'sazhens' long</p>			<p>24s×5s</p> 
12	<p>A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'seni' and a 'Klet' six 'sazhens' long</p>	<p>Under the 'Klet' is a cattle shed</p>			<p>29s×5s</p> 
13	<p>A 'izba' three 'sazhens' and a 'arshin' long. In front of the 'izba' there is a 'Klet' and a 'seni' five 'sazhens' long</p>	<p>Under the 'izba' is a cold barn. In courtyard hay barn. Under the hay barn is a cattle shed. In the vegetable garden bathhouse two and a half 'sazhens' long</p>			<p>24s×13s</p> 
14	<p>A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'seni' and a 'Klet' four 'sazhens' long without a 'arshin'</p>	<p>Under the 'seni' is a cattle shed. Under the 'Klet' is a barn and cellar two 'sazhens' long. At the end of the yard is a horse shed, which is surrounded by a 'Zaplot'. In the vegetable garden bathhouse two 'sazhens' long</p>			<p>33s×9s</p> 
15	<p>A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'seni', which are made of 'Drani'</p>	<p>In the yard there is a cellar two 'sazhens' long and a cattle shed. Opposite the 'izba' there is a bathhouse on the river Bank, three 'sazhens' long</p>			<p>7s×6,5s</p> 

16	A 'izba' three 'sazhens' long without a 'arshin'. In front of the 'izba' there is a 'seni' and a 'Klet'	In courtyard hay barn; under the hay barn is a cellar			36s×9s 
17	A 'izba' two and a half 'sazhens' long. In front of the 'izba' there is a 'Klet'; between them is a 'seni'	In the courtyard is a barn. In the vegetable garden bathhouse two 'sazhens' long			24s×10s 
18	A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'Klet'; between them is a 'seni'	Under the 'Klet' is a barn and a cellar. In courtyard hay barn.			The yard is fenced with a 'Zaplot' 15s×9s 
19	A 'izba' two 'sazhens' and a 'arshin' long. In front of the 'izba' there is a 'seni' made of logs. There is a storeroom in the 'seni'. two 'sazhens' long	In the courtyard is a cellar two 'sazhens' long. In the yard bathhouse one and a half 'sazhens' long			19s×10s 
20	A 'izba' three 'sazhens' and a 'arshin' long. In front of the 'izba' there is a 'seni' four 'sazhens' long; There is a storeroom in the 'seni' two 'sazhens' long. There is a 'Klet' two and a half 'sazhens' long	There is a hay barn in the yard. Under the 'Klet' and Under the 'seni' is a barn. In the vegetable garden is a cellar and a bathhouse three 'sazhens' long			23s×11s 
21	A 'izba' three 'sazhens' long. There is a storeroom in the 'izba'. In front of the 'izba' there is a 'seni' two 'sazhens' long. In front of the 'izba' there is a 'Klet' two and a half 'sazhens' long	Under the 'seni' is a cattle shed. Under the 'Klet' is a cellar. Behind the 'Klet' is a horse shed. There is a cattle shed in the yard			11s×11s 
22	A 'izba' two and a half 'sazhens' long. In front of the 'izba' there is a 'seni' and a 'Klet' four 'sazhens' long. Another 'izba' two 'sazhens' long. In front of the 'izba' there is a 'seni' one 'sazhen' long	Under the 'Klet' and under the 'seni' is a cattle shed. There is a well in the yard. In the vegetable garden is a bathhouse three 'sazhens' long			19s×8s 

23	A 'izba' three 'sazhens' long without a 'arshin'. In front of the 'izba' there is a 'seni' and a 'Klet' one and a half 'sazhens' long. Behind the 'Klet' is a small 'Klet'	In the yard well, bathhouse two 'sazhens' long			<p>18s×14s</p>  <p>The yard is fenced with a 'Zaplot'</p>
24	'Gornitsa' on the 'podklet' three 'sazhens' long; it has a storeroom is made of 'Tesa'. In front of the 'Gornitsa' there is a 'seni' and a 'Klet' six 'sazhens' long				<p>40s×20s</p> 
25	A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'seni'. In front of the 'seni' there is a 'Klet'	In the yard is a bathhouse and a hay barn. There are two cattle sheds under the hayloft			<p>14s×12s</p> 
26	A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'seni' and a 'Klet' five 'sazhens' long	Under the 'Klet' is a barn. In the yard is a hay barn made of logs. In the vegetable garden is a bathhouse			<p>19s×9s</p> 
27	A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'seni' and a 'Klet' six 'sazhens' long	Under the 'Klet' is a cellar. There are two cattle sheds under the 'seni'. In the yard is a hay barn. In the vegetable garden well, bathhouse			<p>18s×10s</p> 
28	A 'izba' two and a half 'sazhens' long. In front of the 'izba' there is a 'Klet' two and a half 'sazhens' long; between them is a 'seni'	Under the 'Klet' is a cellar. Under the 'seni' is a cattle shed. In the yard is a hay barn. In the vegetable garden is a bathhouse two 'sazhens' long			<p>22s×4s</p> 
29	A 'izba'. In front of the 'izba' there is a 'Klet'; between them is a 'seni'				<p>20s×10s</p>  <p>The yard is fenced with a 'Zaplot', and the vegetable garden with a 'palisade'</p>

30	<p>A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'Klet' three 'sazhens' long; between them is a 'seni'. A 'izba' two 'sazhens' long. In front of the 'izba' there is a 'seni' and a 'Klet' made of logs two 'sazhens' long</p>	<p>In the vegetable garden is a bathhouse</p>			<p>25s×8s</p>  <p>The yard is fenced with a 'Zaplot', and the vegetable garden with a 'palisade'</p>
31	<p>A 'izba' three 'sazhens' long. In front of the 'izba' there is a 'Gornitsa' three 'sazhens' long without a 'arshin'. between them is a 'seni'. there is a storeroom in the 'seni'. Another 'izba'. In front of the 'izba' there is a 'Klet'; between them is a 'seni'</p>	<p>In the vegetable garden is a bathhouse. In the yard is a hay barn</p>			<p>15s×14s</p>  <p>The yard is fenced with a 'Zaplot', and the vegetable garden with a 'palisade'</p>
32	<p>'Gornitsa' on the 'podklet' three 'sazhens' long. In front of the 'Gornitsa' there is a 'Klet'; between them is a 'seni'</p>	<p>Under the 'Klet' is a barn</p>			<p>15s×9s</p>  <p>The yard is fenced with a 'Zaplot', and the vegetable garden with a 'palisade'</p>
33	<p>Two 'izbas'. In front of the 'izbas' there is two a 'Klets'; between them is a 'seni'</p>	<p>In the vegetable garden is a bathhouse two 'sazhens' long</p>			<p>16s×10s</p>  <p>The yard is fenced with a 'Zaplot', and the vegetable garden with a 'palisade'</p>

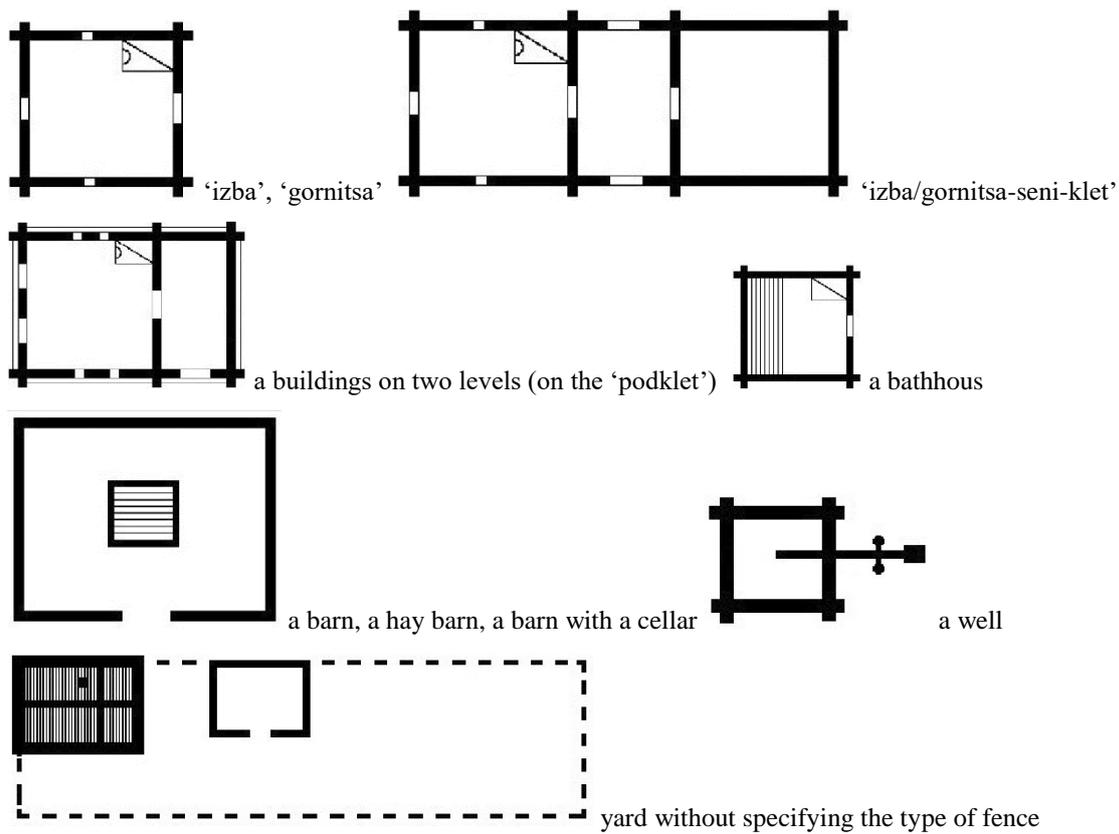


Figure 1 Conventional Signs.

4. CONCLUSION

Materials of the census book indicate that at the beginning of the 18th century in Yeniseisk, the main structural units of the city were yard plots, the area of which had a significant size (from 600 to 1500 square meters). A significant part of the yard area was occupied by vegetable gardens, which completed the territory of the residential and economic complex. The structure of the residential building has a second warm room – the *'gornitsa'* (clean, front half of the house). It was built on the *'podklet'* (the lower floor of the house), which warmed the living space. In the early 18th century in Siberian cities were often built three-chamber dwellings, which consisted of warm pieces (*'izba'*, *'gornitsa'*), *'seni'* (the space connecting the entrance to the house with the rooms) and *'klet'* (cold part of the house, pantry). The peculiarity of the dwellings of Yeniseisk was the significant size of the area of buildings. The three-chamber structure reached a length of 18–19 meters, and the area of warm rooms – 6.5×6.5 m. The same size had the *'seni'* and *'klets'*. The total area of three-chamber buildings was 130 sq. m. Almost every yard had buildings for keeping livestock and rooms for storing hay. In the courtyards of Yeniseisk there

were buildings of two-tiered construction. In the description of the listed farm buildings, which were arranged under living spaces. This allowed rational use of the yard area and created convenience for household management. Baths were most often placed in the vegetable garden. They were large – 4.3×4.3; 6.4×6.4 m. Wells were built next to the baths. The yard was fenced a *'Zaplot'* (horizontal half-logs or boards inserted with their ends in the grooves of the racks), and the vegetable gardens – with a *'palisade'*. Buildings were built with logs and frames. The roofs and floors of the buildings were made of *'tesa'* and *'drani'*, which were made of split logs. Mica, rich deposits of which were located in the Yenisei district, was inserted into the windows. The construction of a large number of such buildings is explained by the knowledge and experience of Russian settlers, the abundance of forest material in Siberia.

AUTHORS' CONTRIBUTIONS

V. I. Tsarev performed a scientific analysis of the identified archival materials. Systematization of information 'Census book of Inns of Yeniseisk' allowed V. V. Tsarev to perform a graphical reconstruction of the buildings of the city yard,

typical for villages in Central Siberia the turn of the 17th and 18th centuries ("Figure 2").

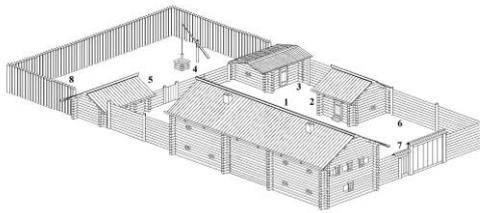


Figure 2 Building of the yard in the villages of the Yenisei district of the turn of the 17th and 18th centuries. 1 – two of the 'gornitsa' on the 'podklet' and a 'seni'; 2 – a barn; 3 – a cattle shed; 4 – a well; 5 – a bathhouse; 6 – a 'zaplot'; 7 – a gates; 8 – the vegetable garden fenced a 'palisade'.

- Graphic reconstruction of the authors

The creation of a scientific database of the architectural and urban heritage of Yeniseisk is the basis for the concept of forming a regional historical, cultural and tourist complex in Central Siberia.

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