Wooden Architecture of Central Russia: A New Discovery
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ABSTRACT
There are few pieces of wooden architecture heritage remaining in Central Russia today, but in the past wooden construction flourished there and had a rich tradition. Recent research of Moscow Oblast wooden architecture reveals an almost unstudied field in the history of architecture. Wooden churches of Central Russia have unique architectural and constructive features, which distinguish them from the well-studied wooden churches of Northern Russia. On the example of three studied objects, the article reviews the typology, specifics of architectural forms, techniques of façade finishing, and coloring. The article provides insight into the architectural, artistic and stylistic features of Central Russian wooden church architecture.

Keywords: Russian wooden architecture, Central Russia, wooden churches

I. INTRODUCTION
The northern regions of Russia are rightfully believed to have the richest heritage of wooden architecture. It is true that due to the climate wooden construction existed here for a long time, the traditions proved to be viable, and quite a lot of old wooden buildings survived up to this day.

In the past, wooden construction prevailed everywhere in the country. Rich buildings in central cities and large monasteries acted as models for construction in the province and in the suburbs. Accordingly, the known 17th - 18th centuries wooden churches of the North were replicas of buildings in Central Russia.

Unfortunately, little is known about the wooden church architecture of Central Russia. Centers always develop most intensively. Styles and trends quickly replace each other. Stone forces out wood in construction. In Moscow Oblast, the few remaining pieces of wooden architecture heritage were built in the 18th century or later.

The wooden architecture of Central Russia is not studied well enough. The work by B.P. Zaitsev and P.P. Pinchukov, dedicated to the wooden churches of Moscow Oblast, stands out [1]. However, it considers a limited number of objects and lacks scientific and analytical assessment, and thus fails to provide a complete image of the preserved wooden architecture heritage of the region. This article discusses the recently studied objects of wooden architecture in Moscow Oblast, which opens up a new perspective of the wooden architecture of Central Russia.

II. OUR LADY OF KAZAN CHURCH IN SUSHKOVO VILLAGE
Our Lady of Kazan Church, located in Moscow Oblast in Sushkovo village, which is now a part of the town of Lukhovitsy, is one of the rare examples of Central Russian wooden churches that have survived to our time. The main wooden framework of the building is an octagon on cube with a dome on the top. Adjacent to it is a five-sided vaulted altar. The refectory is extended to the south and is covered with a three-slope hip roof. Located in the southern part of the refectory, is Nikolsky side-chapel. The altar of the chapel is adjacent to the southern wall of the main church. The bell tower, connected to the refectory, was built much later, and is not structurally integrated into the main part of the building. In addition to the western entrance to the church, there is another entrance from the north leading
directly to the prayer room. The whole structure is based on a stone strip foundation. The walls are covered with painted timber boarding. The roof is made of iron plates (“Fig. 1”). The walls inside the church and refectory are plastered. 19th century painting on plaster remains on the walls of the main praying room.

Our Lady of Kazan Church in Sushkovo was built in 1754. The construction of the church is mentioned in I.V. Dobrolyubov’s book [2]. The same source indicates that the church was built on a new site by I.V. Svechin, the owner of Sushkovo village.

The church stylistically resembles late 17th - early 18th century stone churches that due to conservatism were built in provincial areas throughout the 18th century. The tiered structure of the main framework of the church, the illumination octagon with a dome, the low vaulted altar indicate that the building follows the traditions of the Naryshkin Baroque. An accurate stylistic assessment of the Kazan Church was made by G.K. Wagner, who wrote that the church is typical of early 18th century, or even late 17th century. At the same time, the simple forms and modest decor introduced at a later stage of construction, showing the influence of the Classicist trends [3].

As the surveys showed, the church initially had no chapel. Before the Nikolsky chapel was built, there apparently was a gallery where now the chapel altar is. Its roof left a straight mark on the southern wall of the cube. Nikolsky chapel was apparently built after the rundown Nikolskaya Church in the Oshakovsky churchyard was closed and its parish transferred to Sushkovo [4]. The identical angular log joints of both altars indicate that the structure of the chapel belongs to the earliest construction stages of the studied object.

The restoration work on the church walls revealed the remains of earlier timber boarding. The good condition of the surface of the logs indicates that the walls were covered with boarding at the time of construction. The boarding was put directly on the wooden framework on thin vertical boards embedded in logs. Old records of the contracts for wooden buildings construction show that carpenters sometimes were told to immediately cover the wooden building with boarding. That is how the Kazan Church was built. But what is the most unusual, is that the planks were painted to resemble brick. White seams were roughly painted on a reddish-brown background.

The original windows were found in the second row of the main church building. They have unusual framing designs. Thick bars were connected at right angles, while in the Russian North it was typical to connect window bars at an oblique angle [5]. On the façade, the bars framing the windows were painted to resemble marble. It is the first time when we find such an approach to the decorative design of details in wooden architecture.

In addition, it turned out that the existing upper octagonal tier is the result of rebuilding. The original octagon was larger. The lower round of logs of the original octagon survived, and its design is identical to the design of the altars. The dome had a wooden coating fastened directly to the logs by wrought nails. The roof was painted reddish-brown.

Studying the object revealed a new, very unusual image of a wooden church recreating forms and façade design of stone buildings (“Fig. 2”). It is obvious that the Kazan Church in Sushkovo belongs to the late 17th century Baroque style, which dominated in stone architecture. The overall forms of Kazan Church resemble the one best pieces of the 17th century Baroque, which is Church of the Epiphany in Bogoyavlensky pereulok in Moscow. Many similar churches were built in the Moscow region in late 17th - early 18th centuries.

A similar type of wooden church with the main volume in the shape of an octagon on cube with a dome or flat cloistered vault is represented by a number of 18th century objects in Central Russia (the now lost 1778 St. George Church in Veretyevo village, the 1782...
Nativity of the Mother of God Church in Rudnya-Nikitskoye village, the late 18th century Intercession Church in Syntul village). Also, there are rare late 17th century examples (the now lost church of All Saints in Dushonovo village). All these churches are described with the latest adjustments - in siding, with metal roofs, with rebuilt domes. The original design of these churches is not studied well enough, but it is likely that they had similarities with the Kazan Church in Sushkovo.

It is interesting to compare the church in Sushkovo with the reconstructed Church of Our Lady of Tikhvin in the village of Spirovo near Moscow, which was rebuilt based on the 1719 construction contract [6]. It seems that here we have the same type of wooden church building with forms resembling stone churches.

In the 19th century, the design of Kazan Church changed significantly. A bell tower was attached to the west side. The bell tower floor is based on triangular wooden frameworks. It the construction of the bell tower irregular, disparate logs were used. Some beams inside the bell tower are even made of crooked logs. Apparently, it means the lack of good timber at the time of construction. It seems that it was also the time when the stone foundation was laid. Similar churches near Lukhovitsy (the 1761 Intercession Church in Kurovo village, the 1775 Transfiguration Church in Nikitinskaya village) received foundations and bell towers in 1840 and 1823, respectively [7].

The main, 18th century, part of the church was also rebuilt. Rebuilding of the top part included the removal of the heavy upper tier above the dome and the construction of a new, smaller and lighter one. Circular scaffolding was installed on the wooden dome, with roof boarding and metal roof on it. The roof of the refectory was also rebuilt. She became higher and received metal coating. The roof of the altar was also raised. The old altar roof left a mark on the wall. The wall between the prayer room and the refectory was removed, which made the structural system weaker. The whole building was covered with the same new siding, which was painted with iron minium, and the details with white paint. This was the construction stage that gave us the image of Kazan church as we know it today. Some renovation was made in late 19th – early 20th centuries, but it did not change the architecture of the building significantly.

The design project for the reconstruction of Our Lady of Kazan Church considered different options. The earlier stages of the construction history of the object gave us exceptionally interesting and new discoveries. But still the original design of the church can be recreated only in general and leaves a lot of questions. It is not clear what the gallery, the porch, the top of the dome looked like we do not know the structure of the eaves of the dome. In any case, there is no reason to recreate the original design. But the original architecture of the church and newly discovered details are of great scientific interest.

Based on the completeness and reliability of the data, the most appropriate approach to restoration was to preserve the design that was formed in the second half of the 19th century at the final stage of construction, with the removal of some 1912 details of low value. In this form, the church in Sushkovo is a typical example of the Central Russian provincial wooden church, which is rooted in the architecture before Peter I’s rule and has the signs later Classicism influence. However, the restoration work revealed the original design of windows and fragments of original siding.

III. THE NATIVITY OF THE MOTHER OF GOD CHURCH IN RUDNYA-NIKITSKOE VILLAGE

The pogost of Rudnya (now Rudnya-Nikitskoye village) is located near the town of Orekhovo-Zuyevo in a sparsely populated forested area in the Meshchera lowland. There we can find a unique for the Moscow Region 18th century church complex consisting of three wooden buildings: the cold Church of the Nativity of the Mother of God, connected to the bell tower, and the warm Church of the Nativity of Christ.

The first records of the pogost of Rudnya in Guslitskaya volost date back to the first third of the 17th century [8]. The sources mention the wooden church of the Nativity of the Mother of God. Later documents of the second half of the 19th century provide information on the year of its construction – 1572 [9]. Obviously, this date does not refer to the existing church, but to its predecessor. According to the 1710 description, the Church of the Nativity of the Mother of God had a rectangular in plan wooden framework, a gable roof, and one dome [8]. It is interesting that the description contains information about the gilded iron cross on the dome, which is unusual of an old wooden Russian church. Actually, that is all we know about the 16th century Rudnya church.

The existing Church of the Nativity Mother of God dates is dated 1713 [10]. It is a rather large building with the main octagon on cube wooden framework, a five-sided altar and a refectory. The church is put on a high basement. The refectory and partially the main framework were surrounded by a gallery on massive consoles, formerly open, and now sided with boards. The main wooden framework consists of an octagon on cube, open in the interior and topped with a dome. That means that typologically the Church of the Nativity of the Mother of God is close to the Kazan Church in Sushkovo. But unlike the Kazan Church, which replicates in wood the forms and walls design of a stone
church, the Church of the Nativity of the Mother of God has much more features characteristic of wooden architecture. Those features include a gallery on consoles, carved pillars of the gallery, traditional for wooden architecture, window framing with bars joined at an angle.

The Church of the Nativity of the Mother of God that we can see today was rebuilt many times. In the 19th century, the church was connected to the bell tower by a building a spacious porch between them. The length of the building reached 50 m. The walls of the building, along with the gallery, were sided with planks, the log walls, smoothly hewn inside, were covered with canvas and painted, a metal roof was added. In early 20th century, minor repairs were carried out [11].

Surveys made it possible to determine the initial design of the Church of the Nativity of the Mother of God (“Fig. 3”). This is a wooden church characteristic of Central Russia. There is a number of 18th century churches of the same type that are listed in the section on the Kazan Church in Sushkovo.

However, the most important discovery was the identification of the second construction phase. In the second half of the 18th or early 19th century the church was sided. A large fragment of this siding survived in the attic on the western refectory wall. It was put directly on the logs and consisted of wide, ax-hewn boards and narrow cover strips. The boards were painted white, and the cover strips were red. Some fragments of carved boards with which the façade was decorated can be seen today. These boards were covered with resin. Nothing like this has ever been found in Russian wooden architecture. It means that the design of the Church of the Nativity of the Mother of God at the second construction stage was very unusual if we look at it from the common point of view on the wooden architecture: it had white walls with vertical red stripes of cover strips and golden decorative details.

IV. CHURCH OF THE NATIVITY OF CHRIST IN RUDNYA-NIKITSKOE VILLAGE

The second church in the pogost of Rudnya, the church of the Nativity of Christ, was a winter church, which means that in was heated. There is a number of 1780 - 1781 documents referring to its construction, from which we have the information on the time of its construction. Historical information about the previous church is contradictory, there is a confusion in the names. However, the fact that the second, warm, church existed in the pogost before 1780 is obvious.

In September 1780, Metropolitan bishop of Moscow and Kaluga Platon received a petition from the clergy and parishioners of the Church of the Nativity of the Mother of God to build a new warm church to replace the old rundown one using suitable material [12]. That mean that some forms of the older building could have been recreated.

The 1780 project drawing with the plan and the southern facade of the constructed church has survived [13]. The existing church is similar to the project drawing in plan, but the similarity ends here. Most likely, the project was implemented with a significant simplification of the upper part of the church. In 1781 the church was already built, and was consecrated on September 8. It was a small building, consisting of the main square in plan wooden framework, five-walled altar and a refectory. Survey suggest that the church had a gable roof and a small octagonal tier with a dome. Judging by the well-known analogues, it was a small wooden church typical of the 18th century Moscow region. The Church of the Nativity Christ in its original form together with the Church of the Nativity of the Mother of God and the bell tower formed a traditional wooden church complex (“Fig. 4”). There are many similar examples in the North Russian regions.
The churches were repaired in mid-19th century, as evidenced by the records on the purchase of building materials. A brick foundation was laid under the building [14]. From the inside, the walls were plastered, from the outside they were sided and painted. The results of this repair are recorded in the 1859 inventory. The remark that "the walls throughout the church and in the altar are plastered and painted with decent colors" is interesting and unusual [15]. The survey of the refectory discovered murals in the form of floral ornaments painted with red paint against a grayish-green background on plaster. The fact that the murals on plaster were also found in the church in Sushkovo, such interior decoration was not uncommon in wooden churches of Central Russia.

Later the construction of side annexes extended the Church of the Nativity of Christ. This extension was carried out in 1898 by Moscow diocesan architect S.V. Krygin. Nothing particularly new or deserving our attention was introduced into the architecture of the church during this reconstruction. The church complex of Rudnya, having consolidated by the 20th century, combines the original forms of the 18th century churches with the 19th century additions (“Fig. 5”). The 19th century wooden architecture to a certain extent retained the old building traditions, but at the same time, it absorbed a lot of new stylistic influences [16].

The most important conclusions in this study are that the Church of the Nativity of Christ belongs to the Central regions of Russia. Wooden churches in the Moscow region had their own characteristics that were different from the North Russian churches. Stone church architecture had a significant influence on the wooden architecture of Central regions of Russia.

V. CONCLUSION

Having studied of a number of 18th century wooden churches in the Moscow Oblast, we can draw the following conclusions about the features of their architecture and decoration.

The 18th century wooden churches with tiers on the top are typologically similar to the late 17th century stone baroque churches. They have a similar octagon on cube composition, the shape of a hemispherical dome, the location of windows on the main church volume.

Wooden churches were decorated with facades imitating the surface of a stone wall. This was achieved by coloring the plank siding to resemble brick and coloring the frames of the windows to resemble marble.

At the same time, the decoration of facades shows no resemblance to stone architecture. Vertical white siding with red color strips and golden decor created a unique image of a Central Russian wooden church.

Murals in the interiors of wooden churches in Central Russia were not uncommon. This is evidenced by the decoration of the interiors of the Kazan Church in Sushkovo and the Church of the Nativity of Christ in Rudnya. The plaster on the walls was painted with floral ornaments or narrative compositions.

Wooden churches in the Moscow region had their own characteristics that were different from the North Russian churches. Stone church architecture had a significant influence on the wooden architecture of Central regions of Russia.

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