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**THE UNKNOWN PROJECTS OF
PIETRO ANTONIO TREZZINI.
ON THE TYPOLOGY OF CENTRALLY
PLANNED CHURCHES IN RUSSIAN AND
EUROPEAN BAROQUE ARCHITECTURE**

The Trezzini family of Swiss-Italian born architects, who came from the Canton of Ticino (Tessin), were very important to the introduction of European trends to early and mid-18th century Russian architecture. The first and the best known was Dominico (Domenico) Giovanni Trezzini (ca. 1670–1734)¹, who played a decisive role during the early period of creating Saint Petersburg, the new capital of Russia. Much less known is his son-in law Giuseppe Trezzini (ca. 1700–1768)², which Saint Petersburg is indebted for several very professionally constructed Baroque buildings of the 1730s and 1740s. The most talented was undoubtedly Pietro Antonio Trezzini (ca. 1710–1760s?), a cousin of the wife of Dominico Trezzini's son. He worked

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1 The most significant works on Dominico Giovanni Trezzini are the following: M[ikhail] (?) Korolkov, 'Architekty Treziny', *Starye gody* (April, 1911), 17–36; Yurij M. Ovsiannikov, *Domenico Trezzini* (Leningrad: Iskusstvo, 1988); Irina I. Lisaevič, 'Domenico Trezzini', *Zodchiye Sankt-Peterburga XVIII vek.* (Sankt-Peterburg: Lenizdat, 1997), 19–66; Konstantin V. Malinovsky, *Dominiko Trezini* (Sankt-Peterburg: Kriga, 2007).

2 *Zodchiye Sankt-Peterburga XVIII vek.*, 996.



Fig. 1. Plans for the cathedral in Stavropol (first version). Pietro Antonio Trezzini, 1747. Russian State Archive of Early Acts [Rossiiskii gosudarstvennyi arkhiv drevnikh aktov, RGADA].

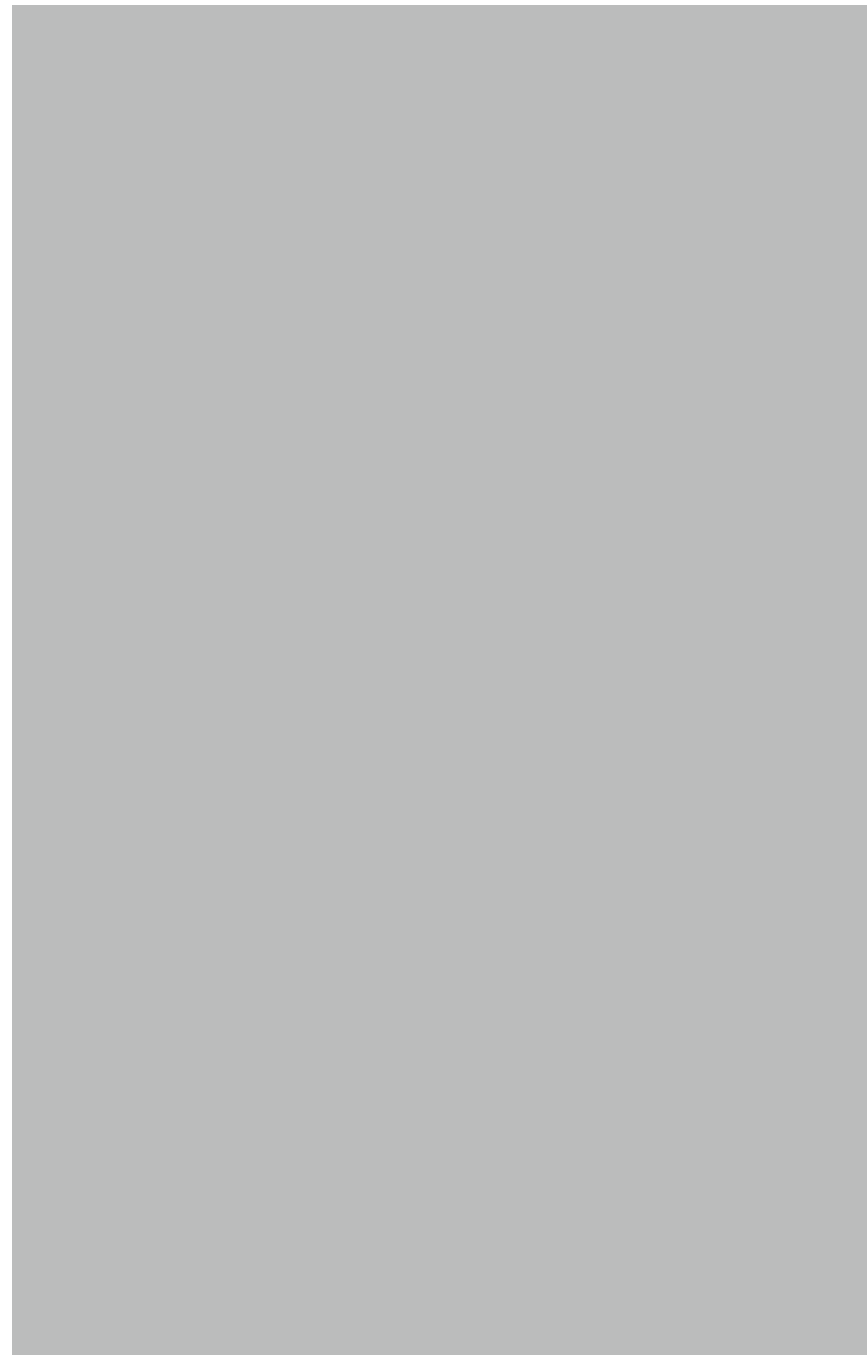


Fig. 2. Plans for the cathedral in Stavropol (second version). Pietro Antonio Trezzini, 1747. RGADA.



Fig. 3. Plans for the cathedral in Orenburg. Pietro Antonio Trezzini, 1747. RGADA.

in Russia from 1726 to 1751.³ Nevertheless, until the present day, the works of Pietro Antonio Trezzini have been under-investigated and underappreciated. His most significant contribution was to Russian ecclesiastical architecture. Yet, his projects for provincial churches and monasteries are the least known of his works. One of them is the design of Cathedral in Stavropol.⁴ In 1747 the Senate commissioned Trezzini to design a five-domed stone cathedral in Stavropol, for

3 The most significant work on Pietro Antonio Trezzini is an article by Gerold Vzdornov: Gerold I. Vzdornov, 'Arkhitekt P'yetro Antonio Trezzini i ego postroyki', *Russkoye iskusstvo XVIII veka: materialy i issledovaniya*, ed. by Tatjana V. Aleksejeva (Moscow: Iskusstvo, 1968), 139–156. Some other articles that deal with the activity of P. A. Trezzini to any degree are worth mentioning: Vladimir F. Shilkov, 'Arkhitektury-inostrantsy pri Petre I', *Russkaia arkhitektura pervoi poloviny XVIII veka* (Moscow: Gosudarstvennoe izdatel'stvo literatury po stroitel'stvu i arkhitekture, 1954), 120–130; Tatjana P. Fedotova, 'K probleme pyatiglaviya v arkhitekture barokko pervoy poloviny XVIII veka', *Russkoye iskusstvo barokko: Materialy i issledovaniya*, ed. by Tatjana V. Aleksejeva (Moscow, 1977), 70–87; Sergei V. Klimenko, 'K voprosu ob atributsii Uspenskogo sobora Svenskogo monastyrya', *Arkhitekturnoe nasledstvo*, 47 (Moscow, 2007), 134–141.

4 This town situated on the Volga disappeared in the mid-20th century as a result of flooding caused by the construction of a hydropower plant.

which he provided two design options.⁵ In the same year, one of these projects was approved by Empress Elizaveta Petrovna and built between 1750 and 1757.

In both projects, Trezzini designed the cathedral as monumental five-domed centrally planned churches with an expressive silhouette and fine decoration. At the centre was a large cylindrical drum with a wooden dome resting on four massive pillars. Four conchs were added to the main square space of the church, shaping the general composition into a quatrefoil. On the diagonal axes of the plan, there were lateral cupolas in the form of turrets, but they were treated in different ways. In the first project, they were placed on the corners of the square plan; in the second project, they were linked onto the corners in the form of independent vertical volumes. In the first project, the side cupolas were brought closer to the central one, creating a solid and stately composition; in the second project, they were moved far apart, and this produced a beautiful silhouette for the church. As regard the external decoration of the church, in both cases the main features were similar, although in the first project, the decoration was more splendid. The walls of the building were decorated with Tuscan or Ionic pilasters and topped with a full entablature.

Five-domed churches were a significant integral part of Trezzini's designs. All the Orthodox churches designed by the Italian architect, except for one, were five-domed design. We know about 13 such designs, including all the alternative projects. However, not all these designs were realized and neither of the churches that were built have survived. Although Trezzini was not a founder of a new type of five-domed centrally planned church, in his work, this approach achieved its most mature and diverse development. None of his contemporaries, including the leading masters of Russian Baroque – Rastrelli, Ukhtomsky and Chevakin – were able to compete with him in this field.

A centrally planned composition was a common feature for all of Trezzini's designs for five-domed churches. A square, as a rule with round or cut-off corners provided the basis of the plan. Four massive pillars that carried a central drum created the second,

5 Russian State Archive of Early Acts [*Rossiiskii gosudarstvennyi arkhiv drevnikh aktov*, RGADA], fond 160, opis' 240, dela 161 and 162.

internal, square. A noble drum with round-headed windows was capped by a high dome with lucarnes. Many details of the facade decoration in Trezzini's churches were similar. They displayed a certain balance of external horizontal and vertical elements and to some extent, restrained dynamics of general composition. The distinct socle, uniform row of high windows and full entablature defined the stable and quiet character of the main body dominated by a five-domed structure. The pilasters, whether single or double, were the main element of the vertical divisions of the facades, the *sui generis* module. Window frames decorated with stuccowork, including floral motifs, cartouches and putti heads, were the most expressive elements of the facades. Still it is worth mentioning that this type of decoration was not unique to the Italian master, but was typical of the Russian Baroque architecture of the period.

Along with general features, certain individual ones stand out in the church architecture of Trezzini. In all the projects, the main structure was supplemented by either smaller or larger projections – the latter created by the arms of the cross or by conchs. In the first case (all five projects for the Preobrazhensky regiment church in Saint Petersburg), the plan was rather compact with an only slightly expressed cross-shaped form. In the second version, a Greek cross plan (the project for the Orenburg Cathedral⁶) was quite distinctively devised. In both cases the pediments at the tops of the projections emphasized the cross-shaped composition. The projects for the Stavropol Cathedral with quatrefoil ground plan comprise the third group.

Almost always, Trezzini placed lateral domes on the diagonal axes on the corners of the structure observing the Russian Orthodox tradition. Only in the project for the Orenburg Cathedral and in the project of the church for the House of the Trinity Sergius Lavra in Saint Petersburg did he place lateral domes on cardinal directions. The latter was occasionally used in Russian architecture, but it was of Ukrainian origin. In addition, the second project for the Stavropol Cathedral with lateral domes on the diagonal axes, but not on the corners of the main structure, should be regarded as unique. The lateral domes, quite often used as belfries, could be of different shapes: in some cases, they looked like solid round drums with

6 RGADA, fond 160, opis' 240, delo 10.

onion-shaped cupolas near the central cupola; in other cases, they were free-standing stepped belfries moved away from the centre. The latter was exploited to the fullest extent in the project for the Orenburg Cathedral.

The facades of Trezzini's five-domed churches and the character of their external decoration had a certain variability and individual interpretation. First of all, this concerns the pilasters, which are treated as one of the main facade's elements. In certain designs, the canonical order hierarchy was followed: the Tuscan order was on the first level, and the Ionic order on the second. However, sometimes Trezzini used either the Ionic or the Corinthian order on both levels, and this intensified the sumptuousness of the facades. As far as columns, Trezzini used them only in one structure – the cathedral in the Monastery of St Trinity and St Sergius near Saint Petersburg.

Trezzini's projects for five-domed churches were directly related to the idea of the revival of a traditional type of the Orthodox church proclaimed by the Empress Elizaveta Petrovna. This idea was widely reflected in Russian church architecture of the time, but its concrete realisation was rather varied.

I will only mention the five-domed Russian churches of the mid-18th century that had central plans. A combination of two typological elements – a five-domed structure and a central plan – is one of the main architectural features of the churches designed by Trezzini. Almost all the five-domed churches of that time had a diagonal placement of lateral cupolas that corresponded to the official requirements concerning orientation towards the Moscow Dormition Cathedral. Such compositions were typical of the churches designed by Rastrelli (cathedral of the Smolny Convent in Saint Petersburg and St Andrew's Church in Kiev), Chevakinsky (the Naval Cathedral of St Nicholas in Saint Petersburg) and Kvasov (cathedral in Kozelets), for the cathedral of the Svensky monastery near Bryansk and for St Vladimir's church in Saint Petersburg as well. This is also true of a number of churches built during the rule of Catherine II, which followed Baroque traditions, for example, St Catherine's Cathedral in Yamburg, St Clement's Church in Moscow, the Dormition Cathedral in Kharkov and the cathedral of the Kazansky Monastery in Tambov.

Though identical in regard to the placement of lateral cupolas on the corners, the five-domed churches demonstrate the diverse relationship between central and lateral cupolas. A relative balance



Fig. 4. Cathedral of Smolny Convent in Saint Petersburg. Francesco Bartolomeo Rastrelli, 1748–1764. Photo: Georgy Smirnov, 2009.

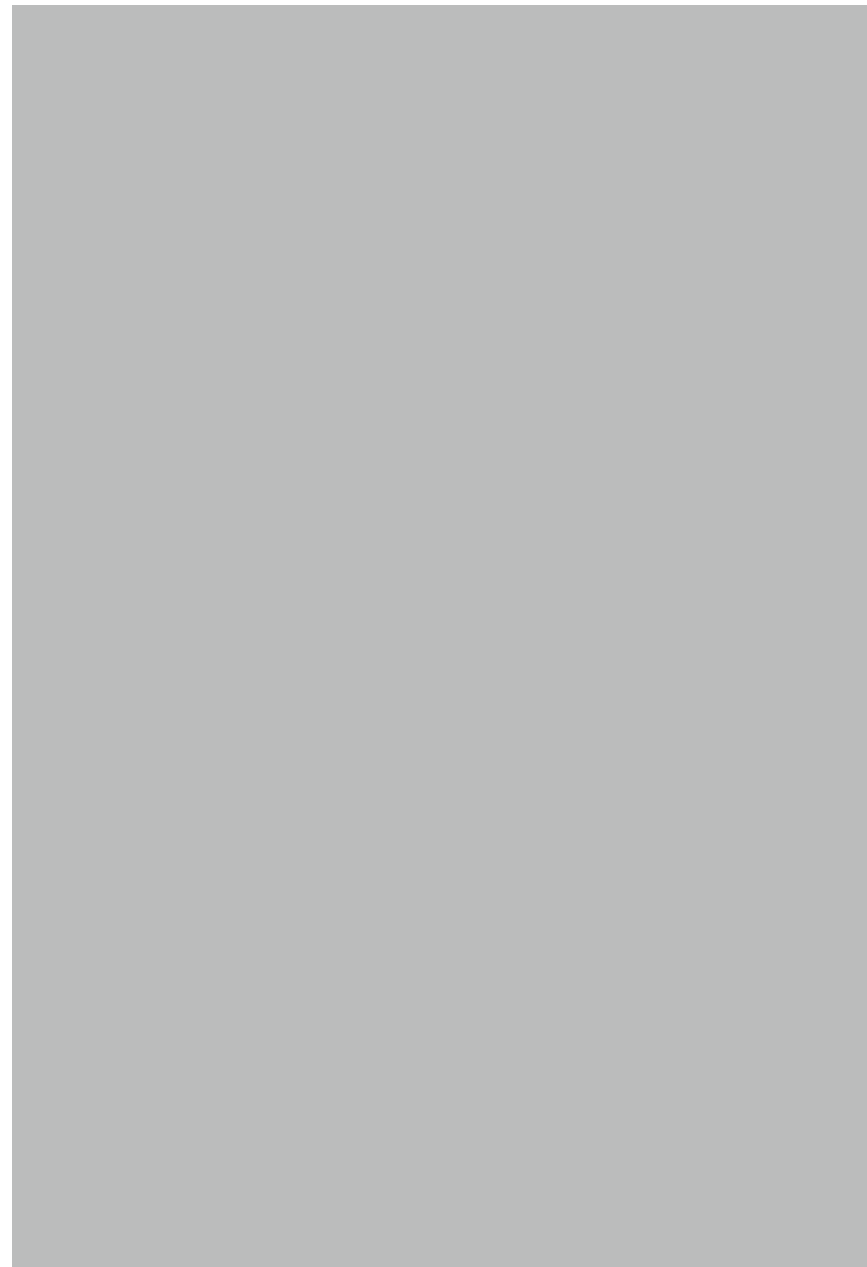


Fig. 5. St Andrew's Church in Kiev. Francesco Bartolomeo Rastrelli, 1747. Photo of the early 20th century.

between them prevailed, for example, in the cathedral of the Svensky Monastery or the Naval Cathedral of St Nicholas in St Petersburg. Such a decision created a monumental and rather static composition, which contemporaries could interpret as examples of the more or less traditional five-domed Orthodox church. Two buildings by Rastrelli – the cathedral of the Smolny Convent and St Andrew’s Church in Kiev represent an absolutely different type of five-domed structure with a contrasting relationship of elements. The monumental cylindrical drum of the central cupola is dominant in the general composition. In the first case, the lateral cupolas in the form of well-proportioned turrets are set close to the central drum, and in the second, they are moved considerably farther away from it. In the works by Trezzini, a contrast in the relationship of the cupolas exists that can only be seen in projects of the Hospital Church and the church for House of the Trinity Sergius Lavra. In his other works, the architect used a more balanced composition. However, in contrast to the majority of the other five-domed churches of that time, Trezzini’s churches had a freer and more varied grouping of cupolas and a finer silhouette.

Most of the churches had a similar division of interior space. The internal structure was created by four massive pillars which singled out a light and high dome area. They supported a central drum and wall arches which divided the side compartments covered with vaults. Only in St Andrew’s church did Rastrelli reject the idea of independent piers creating wall pillars instead. This made it possible to create an excellent integral space flooded with light and air.

The five-domed churches, which were revived in mid-18th century Russia and persistently promoted by the state as a national and Orthodox solution, actually had nothing in common with the local medieval tradition. Typologically, the five-domed Russian churches of the mid-18th century were rooted in European architecture, namely in the Italian Renaissance and Central European Baroque architecture. Projects for centrally planned churches occupied an important position in the work of the best Italian masters in the second half of the 15th and first half of the 16th century. In regard to our theme, the architectural drawings by Leonardo da Vinci (about 1489) and projects for St Peter’s Cathedral in Rome are the most remarkable. On one of Leonardo’s drawings, there are several projects for a five-domed church with a quatrefoil ground plan. Four independent piers, forming an internal square, support a large



Fig. 6. Naval Cathedral of St Nicholas in Saint Petersburg. Savva Ivanovich Chevachinsky, 1753–1762. Photo: Georgy Smirnov, 2017.

cylindrical drum covered with dome. Four small domes are placed at the corners of the main structure. Actually, these are almost all the basic compositional features that will be typical of five-domed Russian churches in the mid-18th century. Leonardo’s designs greatly influenced the works of Bramante, who in his first project for St Peter’s Cathedral in Rome made a centrally planned building with a complicated interior structure and replaced the lateral domes with high campaniles. In the subsequent history of design for the main church of the Catholic world, there was a struggle between basilic (longitudinal) and centrally planned structures. The latter was reflected in the project made by Peruzzi, where the ideas of Bramante were developed and in the project by Michelangelo. Michelangelo simplified the interior structure of the cathedral rejecting a composite differentiation of space, but imparting more unity to the interior and emphasizing the dominant role of the dome space. Michelangelo



Fig. 7. Cathedral of St Catherine in Yamburg (currently Kingisepp). Antonio Rinaldi, 1762–1782. Photo: Georgy Smirnov, 2012.

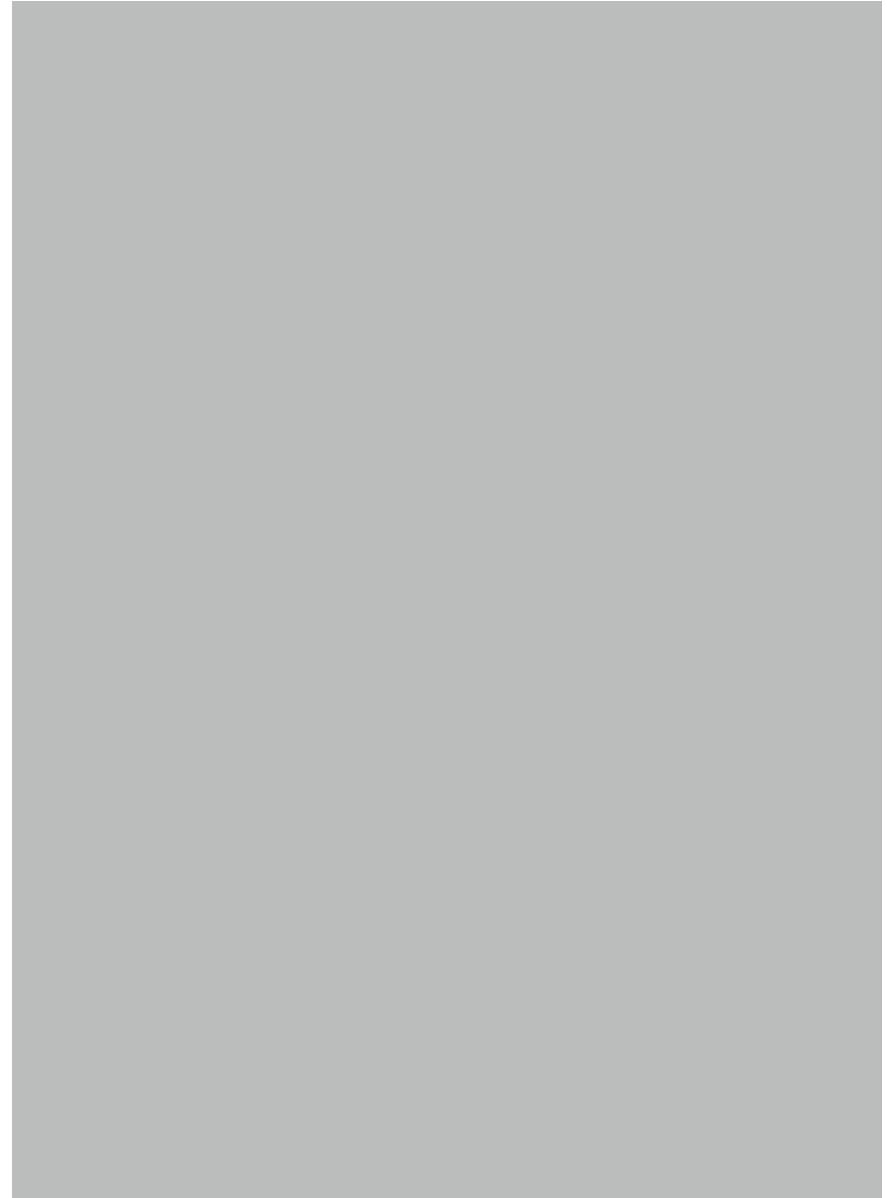


Fig. 8. A general view of St Clement's Church in Moscow, 1762–1770. Photo: Georgy Smirnov, 2015.



Fig. 9. Dormition Cathedral in Kharkiv, 1771–1783. Photo: Georgy Smirnov, 2012.

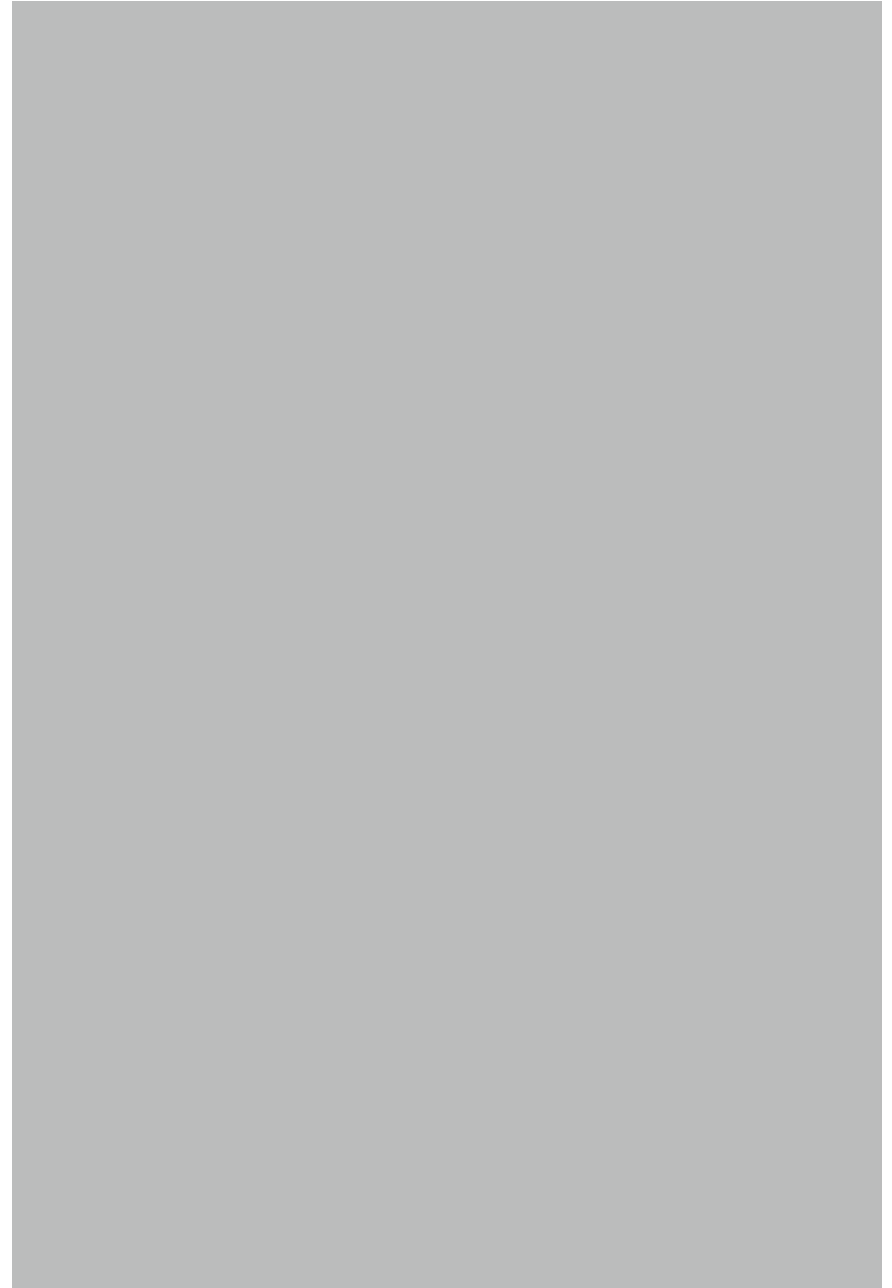


Fig. 10. Cathedral of the Monastery of Our Lady of Kazan in Tambov, 1796. Photo: Georgy Smirnov, 2014.



Fig. 11. Pilgrimage church in Freystadt. Giovanni Antonio Viscardi, 1700–1710. Photo: Georgy Smirnov, 2010.



Fig. 12. Church of Catherine in Stockholm. Jean de la Vallée, 1656–1690. Late 17th century engraving. Illustration from: Wikimedia Commons (public domain).

replaced the campaniles of Bramante with dome drums, which played an outstanding role in the exterior of the cathedral. In my opinion, it was St Peter's by Michelangelo in its original form that can be considered to be the main typological source for the five-domed Russian churches of the mid-18th century.

In the Baroque era, Italian architecture showed less interest in strictly centrally planned compositions. To a great extent, this was caused by the Counter-Reformation epoch and its tendency to develop traditional basilic structures, which were functionally better suited for Catholic liturgical rites. Besides, the creative aspirations of the Baroque masters, which in many respects were the opposite of Renaissance ideals, resulted in more dynamic and space-differentiated structures in which the longitudinal and central plans were united or converged. Nevertheless, in 17th and first half of the 18th century lots of centrally planned churches were constructed in different regions of Italy; but typologically all of them have little in common with five-domed Russian churches.

The analogies that we are interested in are easier to find among various centrally planned compositions that developed in the Baroque ecclesiastical architecture of Central and Northern Europe. The typological features of the pilgrimage church in Freystadt (Bavaria) constructed between 1700 and 1710 (architect Giovanni Antonio Viscardi) are rather similar to five-domed Russian churches. A rotunda over a Greek cross plan is crowned with a massive dome, and there are small belfry towers above the corner chapels. Though the interior structure has nothing in common with five-domed Russian churches, their exterior composition and silhouette are quite comparable to the Bavarian structure.

To a large extent, the development of centrally planned compositions in the transalpine territories is due to Protestantism. Special features of worship in the reformed church, in particular the significance of the sermon and possibility to hear it from any place in a church, called for an integrated, centrally planned space. This contributed to various projects of centrally planned compositions being developed, which were used in Baroque church architecture from Sweden in the north to Silesia in the south. As regards our theme, the Church of Catherine in Stockholm, constructed according to a project by Jean de la Vallée (1656–1690), is of particular interest. This church with a cross-shaped plan has four massive internal piers which support a

crowning structure. The latter was originally much lower and topped by a spire, but after a fire in 1723, a massive octagonal structure with a hemispherical dome was constructed. Small octagonal turrets with domes above the corners of the main volume, together with a central drum, create a harmonious stepped composition that is typologically similar to certain five-domed Russian churches. The similarity between the facades of the Stockholm church and all the projects for the church of the Preobrazhensky regiment by Trezzini should also be noted. It is known that the church in Stockholm was a model for the Protestant church in the Silesian city of Jelenia Góra (Hirschberg), built between 1709 and 1718. It seems probable that Trezzini, followed the Stockholm model to some extent and partly reproduced its external forms.

The best-known Protestant church – the *Frauenkirche* in Dresden (project by Georg Bähr, 1722) – is a magnificent example of a central five-domed structure. The main volume, which is square with cut off corners, includes eight piers on which a cylindrical drum topped with a monumental dome is resting. Corner risalits including stairwells, which project considerably, are topped by small clock turrets. The contrasting relationship of the crowning volumes is similar to certain five-domed Russian churches. Such rare features as corner risalits with turrets have much in common with the second project for the cathedral in Stavropol.

As one can see, there are only individual examples of typological similarity between the five-domed centrally planned churches in Russia in the mid-18th century and the European ecclesiastical buildings of the Renaissance and Baroque eras. It is worth repeating that St Peter's Cathedral in Rome, the Church of St Catherine in Stockholm and the *Frauenkirche* in Dresden were undoubtedly well known to the leading mid-18th century architects in Russia and could have been the main sources of inspiration for the Russian masters. However, not only general typological structures similar to European architecture were of importance. A massive central drum with a majestic dome was of great significance for five-domed Orthodox churches. Such dome drums were typical of the Italian, especially the Roman Baroque, regardless of the typological species of the structure – whether central or basilic (for example, the churches of Santi Luca e Martina or Sant'Andrea della Valle in Rome). The churches built north of the Alps, which followed the Italian models,

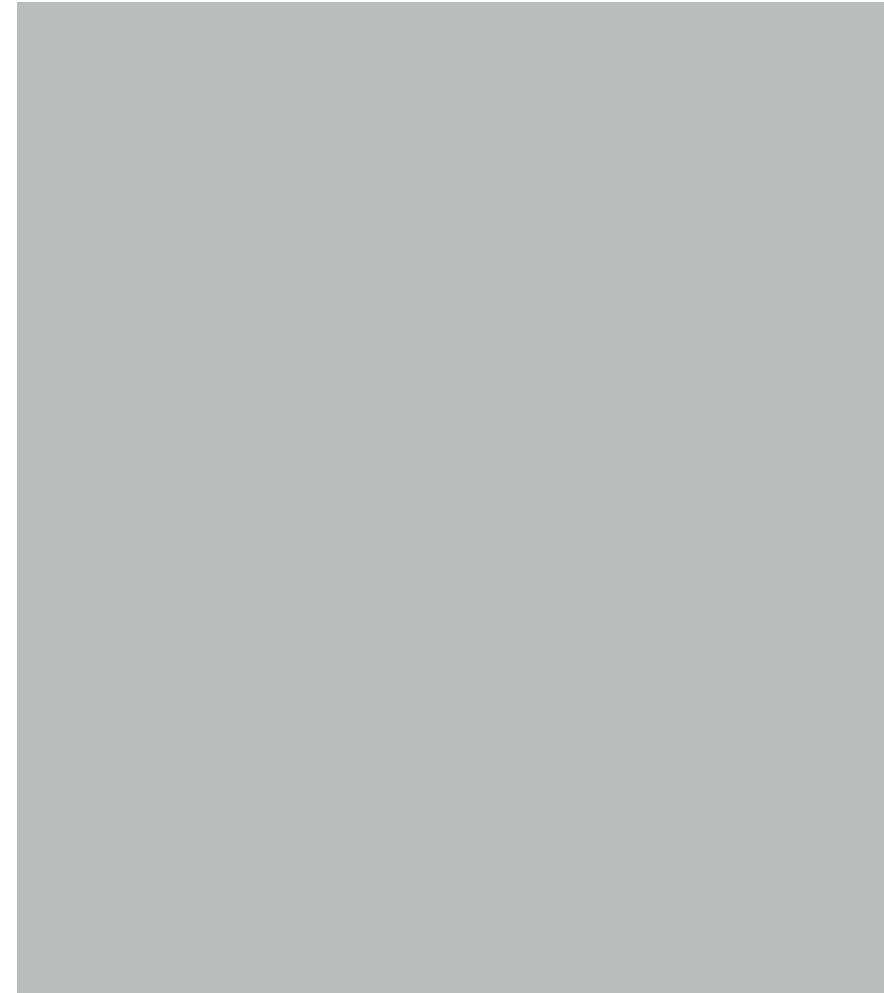


Fig. 13. Church of Catherine in Stockholm as rebuilt in 1723–1744. Drawing (paper, Indian ink) hanging on the wall inside the church.

for example, Theatine Church in Munich, might also have influenced Russian architecture.

European, primarily Italian, churches with two symmetrically placed towers on the western facade and a dome over the crossing should also be taken into consideration. Although they belonged to another typological species they could have an influence on five-domed Russian churches. In this respect, it is worth comparing a



Fig. 14. Dresden Frauenkirche. Georg Bähr, 1726–1736. Restored in 1994–2000. Photo: Georgy Smirnov, 2011.



Fig. 15. Sant'Agnese in Agone in Rome. Facade. Francesco Borromini, 1653–1657. Photo: Georgy Smirnov, 2015.

frontal view of any five-domed Russian church with its widely placed side domes with the western facade, for example, of the church Sant' Agnese in Agone in Rome. The similar features are quite evident.

Attempts to find any typological sources or models of inspiration for the Baroque five-domed Russian churches in the European architecture should not overshadow the ideological basis of their occurrence: the trend of reviving a traditional type of Orthodox church, which had been rejected during the period of reforms by Peter the Great. However, any architect of the time who had a European education could not follow the models of Old Russian architecture literally. For him, functional and aesthetic grounds were more important than ideological ones. In this respect, it is worth citing a notation added by Trezzini to one of his project pages, indicating that the two side domes 'can be used as a bell tower and

a clock tower and other two are for symmetry⁷. In other words, not an ideological principle but an artistic device was important to the architect, who was eager to create a symmetrical composition in the spirit of modern European architecture.

GEORGY SMIRNOV: THE UNKNOWN PROJECTS OF PIETRO ANTONIO TREZZINI. ON THE TYPOLOGY OF CENTRALLY PLANNED CHURCHES IN RUSSIAN AND EUROPEAN BAROQUE ARCHITECTURE

KEYWORDS: FIVE-DOMED CHURCHES; CENTRAL PLAN; CUPOLA; RUSSIAN BAROQUE ARCHITECTURE

SUMMARY

The article deals with two unknown projects made by the Swiss-Italian architect Pietro Antonio Trezzini, who was active in Russia between 1726 and 1751. According to the Commission of the Senate, in 1747 Trezzini designed a five-domed cathedral in Stavropol, for which he provided two design options. One of these projects, which was approved by Empress Elizaveta Petrovna, was realized between 1750 and 1757. In both projects, Trezzini presented the cathedral as a monumental five-domed centrally planned church, which is an integral part of Trezzini's designs. All but one of the Orthodox churches designed by the architect had five domes (we know of 13 such designs, including all the alternative versions). Although Trezzini was not a initiator of this new type of five-domed centrally planned church, his work displays the most mature and diverse development of this approach in Russian Baroque architecture. The

⁷ This is one of the versions of the project for the Preobrazhensky regiment church in Saint Petersburg. State Hermitage Museum (drawing department), N 6847.

article describes the general features of Trezzini's churches and certain individual ones as well.

Trezzini's projects for five-domed churches were directly related to the revival of a traditional type of Orthodox church proclaimed by the Empress Elizaveta Petrovna. This idea was widely reflected in Russian church architecture of the time, but its concrete realisation was rather varied. An attempt is made in article to characterise this situation by briefly focusing on a comparison of Trezzini's designs and the five-domed centrally planned churches designed by other architects.

The five-domed churches, which were revived in mid-18th century Russia and persistently promoted as a national and Orthodox solution, actually had nothing in common with local medieval tradition. Typologically, the five-domed Russian churches of the mid-18th century were rooted in European architecture, namely in Italian Renaissance and Central European Baroque architecture. The most important European sources of inspiration were probably St Peter's Cathedral in Rome (a project by Michelangelo), the Church of St Catherine in Stockholm and the *Frauenkirche* in Dresden, which the leading mid-18th century architects in Russia were undoubtedly familiar with European, primarily Italian, churches with two symmetrically placed towers on the western facade and a dome over the intersection, for example, Sant'Agnese in Agone in Rome, should also be taken into consideration.

CV

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arkhitektury I monumentalnogo iskusstva Rossii. Tverskaya oblast), vol. 1–4 (ed. by G. K. Smirnov, 2003–2016); *History of Russian Art*, vol. 13. *Russian Provincial Art of the second half of the 18th Century (Istoriya rysskogo iskusstva, Tom 13. Provinzialnoe iskusstvo otoroi poloviny 18 veka)* (ed. by G. K. Smirnov, under completing).