



Traditional Russian architecture (Part One)



What is the greatest wonder to a man? The sky and the land and all the creations of the Almighty.

From the "Conversation of the three sanctifiers"

Foreword

Indigenous Russian architecture takes a special place among the architectural traditions of the world. Unfortunately, it is explored rather academically by local studies and is not well-known abroad. Western tradition pays poor attention to such analysis and in the best case one can find Russian examples in the section of Byzantine architecture. But it is worth emphasizing that Russian architecture is not an appendix to Byzantine one (a common misconception) and has developed its own original features undoubtedly absorbing many historic national traditions but uniquely reworked (as it was with Romanesque tradition to Byzantine one, Gothic to Arabic, Renaissance to Antique and so on).

Russian architecture is characterized by monumentality and at the same time plasticity of shapes, a special sense of firmness and tranquility, harmony with human proportions, human scale and demands.

This research is an attempt to make a comprehensive and obvious analysis of the most peculiar features of Russian architecture be it decorative elements or construction principles that make it recognizable not only to foreigners but to Russian citizens as well. The author hopes that the study will be useful to a broad range of readers, firstly digital artists (hence are the popular culture examples included in the research).

Origins

From the Xth and up to the end of the XVIIth century (when the Peter the Great's reformation began) medieval Russian art (over 7 centuries from the millennial history of Russian art) was closely connected with the Church and Orthodox Christianity.

Since olden times national consciousness experienced beauty as holiness that became the law and sacred ideal for any kind of artist, be it icon painter, scribe or architect.

The adoption of Christianity was supported by wide-scaled cult building. Nationwide ideas were realized in religious forms.

Materials

Speaking about architecture in general it is worth mentioning that the most available material for eastern slavs was wood. It can be easily treated and there was always plenty of woods around. Wood was used for any kind of structure be it common living house, a store, a church or a palace.

In addition, we should mention that many shapes and decorative elements used by architects, were first developed in wood and later translated into the masonry. National masters were able to diversify the composition of the building and plastically brighten it. Thus, Russian architecture has evolved from a simple peasant farm house to a complex volumetric composition of multi-leveled tented churches.

Numerous mythological heroes that relate to nature forces, like Russian firebird, Mother Earth or Bright Sun have come firmly into the national consciousness and were carefully saved in peasant embroidery and wood carving up to the present day. Though these symbols have lost their primal meaning with the time and transformed into amusing fairy tales and intricate knots on the surface. Here are the roots of the expressiveness, decorativeness and rich ornamentation – another characteristic features of the Russian traditional architecture.

Most stable tradition of wooden architecture remained on the Russian North due to its remoteness from the mongol-tatar invasion and big industrial centers.

Wooden architecture is another big study and it will be presented later as a part of this general Russian architectural research. As for this part, let us examine the main stages of development of stone architecture and its main cultural centers, where those principles and shapes have been established.

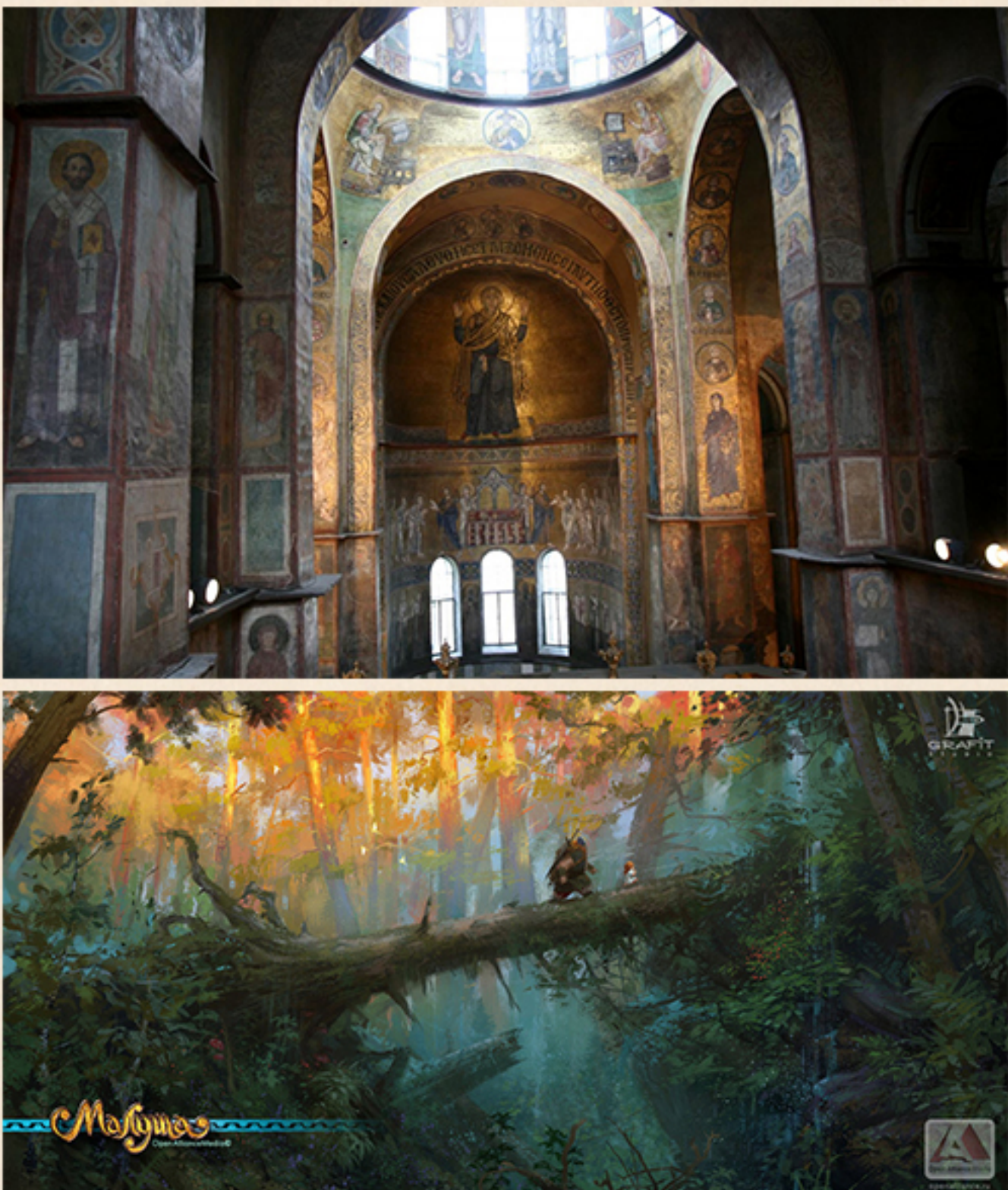
Kiev

First city to adopt Christianity in the state of Rus’ was Kiev. Greek masters initially came to the capital city of the Russian land. Being one of the largest cities in medieval Europe in a whole Kiev can be seen as a political rival of Constantinople, hence it has its own Golden Gate and the cathedral of the Holy Wisdom (Sophia). Kievan architecture is characterized by the strongest orientation on the Byzantine samples by grandeur and triumphal feeling, solemnity and festivity. This is strongly connected with the claim of authority of the Duke (knyaz) of Kiev over the young state of Rus’.

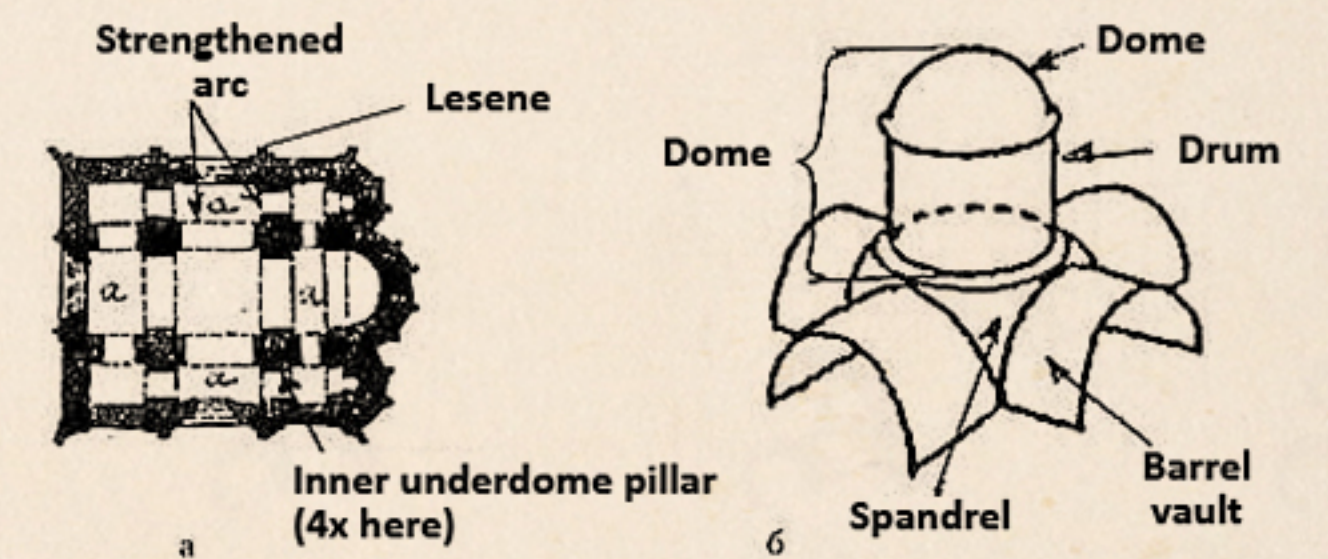


Architecture and decoration of the cross-domed church were borrowed from the Byzantium, the most prominent sample being the St. Sophia cathedral in Kiev. Though it bears some features of the pagan heritage too, for instance the pillars have a cross shape in cutaway and make the interior resemble the forest with a glade under the dome. Pyramidal volume of the cathedral has connections with pagan shrines and is organized according to the axe of the mythological Vyry world tree.

Formal visual features of a new style also include typical layered masonry – a mix of stone blocks and flat bricks known as plinth. They form long rows over the wall. In addition, the inclusion of brick particles into the lime mortar creates pink color of many church walls of that time.



A contrast change of darkness beyond the pillars and galleries with light coming from the dome (combined with mystical light reflected from the mosaics) can be compared with a forest grove. Such grove can be seen on the illustration to animated movie "Malusha" with its golden warm light that transforms the tops of the trees but can't reach the cold forest depths. This example is not exactly about literal, visual resemblance but more about the mysterious kinship of effects.



Cross-domed structure became widely spread for stone architecture. The main dome was usually accompanied by 4-12 smaller domes. It lied over the drum with light windows, supported by four big pillars inside the cathedral. Thus, rectangular in plan the building was divided by a cross, who's intersection was situated exactly under the dome. Other pillars created additional naves leading to the altar. Usually there were three or five naves. The altar was situated in the eastern part of the building and stood out thanks to the apses. The choir was situated over the entrance from the western side of the cathedral. It is in fact a balcony for the most prominent and noble people during the liturgy – the duke, his family and confidants.



Pyatnytska (St.Paraskeva) church in Chernihiv (Ukraine) became one of the brightest embodiments of new trends in Russian architecture. It proves that Kievan Rus’ didn't feel itself only a timid student of Byzantine teachers. The church shows the completed transformation of the cross-domed plan. The church seems to fly up because of the highly raised drum as if sprouting from the vaults (raised by ledges above the branches of the cross), lowered side pilaster strips and collected vertical multilayered central lesenes. It is growing before our eyes like a stone flower, blossoming from the halo of semicircles. The uniqueness of the church that has no analogues in Byzantine and Western European is intensified by the colorfulness of its exterior and solemnity typical for national perception. Compared to more ascetic and lowly Byzantine churches, old Russian churches pay more attention to the beauty and plastics of the outer image, softness, warmness, picturesque sense, fitting to the surrounding landscape. These best qualities will be inherited in such further masterpieces of the Russian land as the Church of the Intercession of the Holy Virgin on the Nerl River.

Number of domes symbolism:

- 1 - Jesus Christ
- 2 - Two natures of Christ (human and divine)
- 3 - The Holy Trinity
- 5 - Christ and four gospels
- 7 - Seven sacraments and seven ecumenical councils
- 9 - Nine angelic ranks
- 12 - Christ and twelve apostles



The church of SS Peter and Paul on Gorodyanka is supposedly shown in the animated movie "Fortress". The drawn building has more elongated proportions compared to real prototype though. The reason for that can be in an attempt to create some visual accent on the shot. The style shows strong Byzantine influence that is explained by the proximity of the western Smolensk lands to Kiev, where Byzantine tradition has been developed stronger than anywhere else.

Novgorod the Great

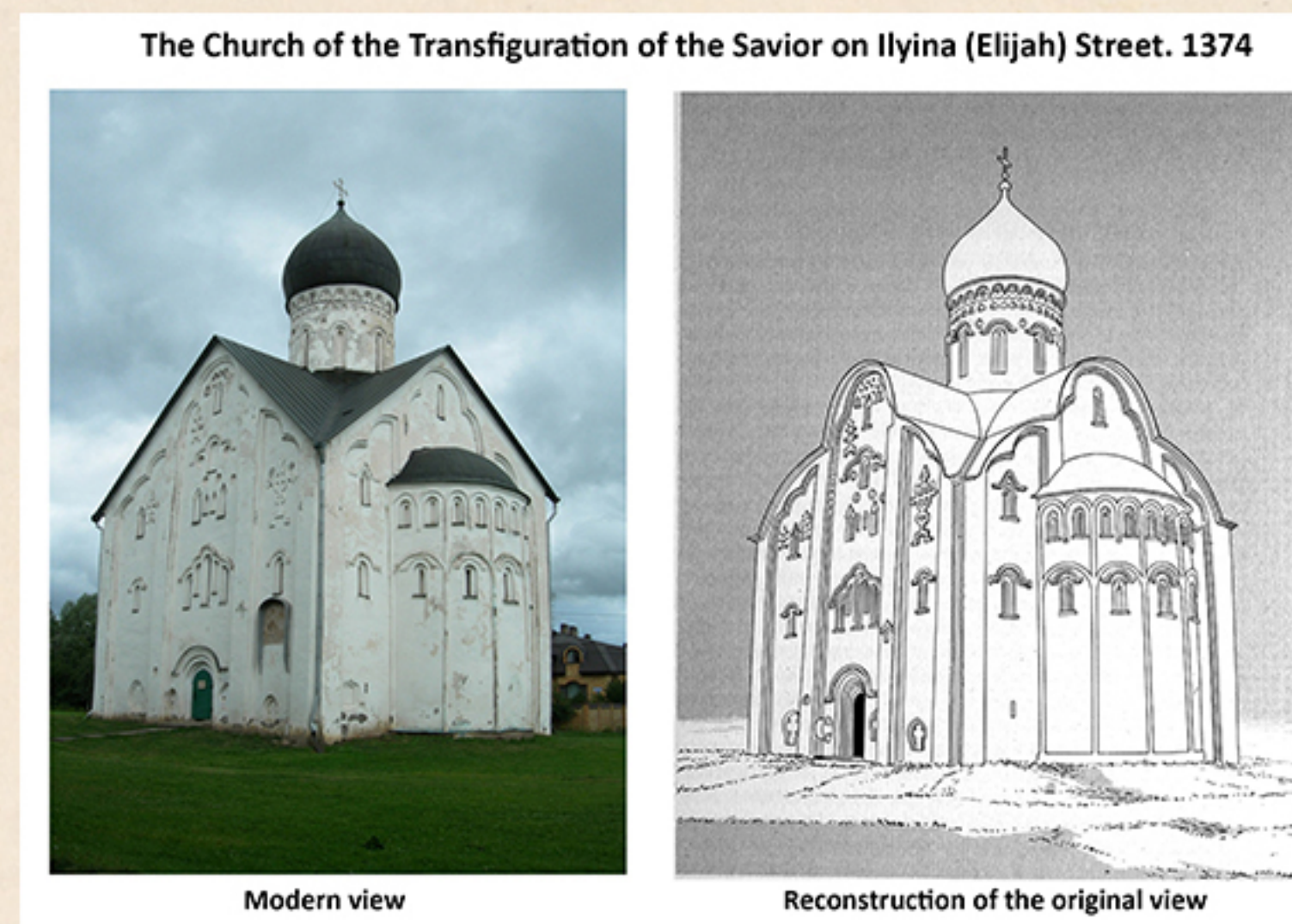
For several centuries the second capital after Kiev in Rus' was Novgorod the Great. The city was known for its large populousness and wealth. The elder sons of Kievan princes became the rulers of Novgorod. Accumulating considerable power and riches, the city was able to build numerous majestic temples.

Monumentality and strength, laconic yet vivid silhouette, big divisions, energetic masses of the constructions are conformable with the character of the severe northern nature. Subsequently the severity and austerity of shapes was smoothed by increased implementation of decorative elements, typical exactly for Novgorod.



Single volume of St. Sophia cathedral of Novgorod is remarkable for its monumentality, sublimity and really epic nature.

The sketch and cinema view of Novgorod from "Sadko" movie (1952). Severe northern mood and height of St. Sophia cathedral are in the focus. The cathedral is a white giant dominating over the city.



Three-blade shaped zakomaras with a brovka arch are a peculiar feature of the Novgorod building tradition. It resembles a currant leaf. Sometimes the roof didn't follow the shape of zakomaras and was straightened to sharp gable roof from each side of the church. Such features were determined by rainy and snowy climate. For the same reason the inner pillars supporting the vaults are placed widely and nearly pinned to the walls. The interior thus seems to be visually higher. Small niches and sockets on the facades, rosettes and begunets/porebrik rows under the domes are also characteristic of the Novgorod architecture.



Brovka (rus. "eyebrow") is a relief arch above the window, door or the niche, well used in orthodox Slavic architecture. It was a characteristic feature of Novgorod the Great. Brovka may be single or multi-part, uniting several windows or niches. Its sides were usually straight and horizontal. It was also often used with porebrik.



Porebrik is a kind of ornamental brickwork in which the bricks are set at an angle to the wall surface (edge outside). It was very popular in Novgorod and Pskov. However, porebrik should be distinguished from begunets, with which it was often used together.

Begunets is a kind of ornamental brickwork where bricks are set in zig zags forming rows of triangular sockets in the wall. First appeared in XII century it then becomes popular in Novgorod and Pskov. As well as porebrik, begunets can be found both in brick and stone buildings, usually on the drum of the dome, over the windows and in the upper parts of the curtain wall (as some sort of frieze), often with other decorative elements.

Pskov

The foundation of the city of Pskov is lost in legends though it always played a great role in the life of the country, being one of the main protectors of the land right on its western borders. Like its northern neighbor Novgorod, Pskov can also be characterized by the sense of strength, power, and severity but the fortress-like feeling here prevails. Even the churches are squat and thickset, more down to earth and closer to a man.



The stability of the universe achieved by the architects in Pskov buildings creates a sense of protection. There is a joke: "Moscow temple is a cake, Pskov one – a chest". The facades of the fortress-like low temples in Pskov land are strict and stingy for decoration: carved cross over the onion dome, triangular roof slopes, white walls of the quadrangle that is cut through with narrow windows, belt of triangular cavities on the drum and the altar apses, sometimes decorative stone crosses in the walls. These are the main features of the Pskov temple. Small winter chapels were built to the walls of the church creating the galleries around it. The walls are built of local limestone which was not polished and was not even treated smooth. Uneven surfaces of facades covered with plaster and whitewashed look like alive and whimsical fabric on which the twilight shadows or Northern sun play. All this creates the impression of the extraordinary richness, inner concentration and truly spiritual power created by consciously limited means.



An environment concept art, done for a movie "1612" by a Russian-Uzbek painter Sergey Alibekov, shows the surroundings of the Pskov Krom (kremlin) in winter. The mighty and severe looks of the squat towers corresponds to the nature around it, creating a harsh but noble and lofty mood.

The principality of Vladimir and Suzdal

This region has been a remote fringe of the Kievan Rus', lost in deep woods. The exploration and development of this territory relates to the names of Vladimir the IInd Monomakh, Yuri Dolgorukiy ("the Long-Armed"), Andrey Bogolubskiy ("the Pious"), Vsevolod the Big Nest. Many Russian cities have been founded during the reign of the dukes of Vladimir: Rostov the Great, Yaroslavl, Vladimir, Suzdal, Pereslavl-Zalessky ("beyond the woods") and yet unknown small fortress named Moscow.

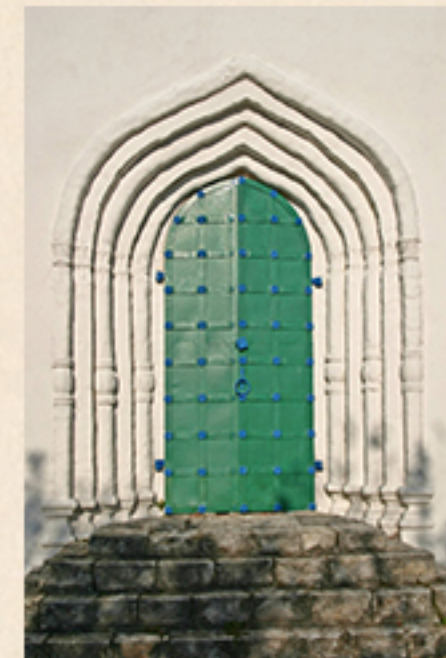
The architecture of Vladimir made wide use of white stone that became its calling card for all time. This architecture is known for its specific sense of lightness and spirituality thanks to pure white shapes with delicate tracery, striving upwards, noble, elegant and subtle composition. It is mainly the white-stoned masonry that creates very strong associations with all Russian national architecture.

This land experienced certain influence of the Romanesque architecture of the Western Europe.

Vladimir and Suzdal architecture is easily recognizable thanks to the usage of white stone as well as tall dome drums with thin slit-like windows, perspective portals, arcaded friezes which resemble an intricate fringe, pilasters instead of lesenes. The architecture of this region has developed from fortress-like to palace and courtier (just compare the churches of Boris and Gleb in Kideksha and Savior's cathedral in Pereslavl-Zalessky with Bogolyubovo, cathedral of St. Demetrius in Vladimir and the church of the Intercession on the Nerl river).



Arcaded frieze with pillars is a decorative element placed along the wall. It can be attached directly to the wall, then forming a band of blind arcades and pilasters, or there is some little space between them. Arcaded frieze may be continuous or interrupted. Pilasters/Pillars of that band may be standing on the ledge of the wall or placed on consoles, usually decorated with mythical heads, faces or flowers.



Perspective portal is a portal in the form of several smaller ledges going into the depth of the building. This portal is spread in Romanesque, Gothic and ancient Russian architecture from the XIth century. Columns and even sculptures are placed on both sides of the portal. In ancient Russian architecture it can be crowned by a keel-shaped archivolt (an ornamental molding or band following the curve on the underside of an arch), in other words by a kokoshnik.

Zakomara (from old Russian "komara" - vault) is a semi-circular or keeled ending of a curtain wall, following the vault behind it by its shape. It connects two neighboring lesenes. Zakomara was a typical feature of old Russian orthodox churches though later (due to brick introduction instead of stone and impractical features like snow accumulated in vaulted roof joints) pillarless construction with pyramidal roofs started to prevail. In the end of the XXth century new construction technologies allowed arched roofs with zakomaras to return back to church architecture. In many cases a mix of zakomaras and kokoshniks is used for decorative effect.

Pryaslo is a curtain wall/a stack stand between two lopatkas finished with zakomaras.

Lopatka is in fact a lesene, a pilaster strip without any décor. It divides the wall in sections, that are finished at the top by zakomaras.



The Church of the Intercession of the Holy Virgin on the Nerl River is often called the most beautiful Russian church and the symbol of medieval Russia. It is considered to be the abode of the Russian soul. With its refined proportions and elongated lines, lightness and grace, the temple overcomes the boundaries of the material world.



Gorodchatiy belt (rus. literally "town-like belt") is an ornamental frieze of stepped dentils on the lower edge (usually on dome drums and under the cornices). It can be flat or dimensional with its parts increasing in size to the top. Something like gorodchatiy belt can be found in Islamic architecture where those elements are looking upward as battlement and resembling ziggurats. Art specialists can jokingly call gorodchatiy belt ziggurats too.



In the soviet movie "Ilya Muromets" (1956) the architecture of Vladimir and Suzdal lands has been taken as a reference for decorations (note the stair tower from Bogolyubovo palace and pillar capital from the Assumption cathedral of Vladimir). The reason for this can be in a lack of old surviving Kievan architectural samples of the proper time period, also not all of them had been fully restored by the time of the movie production and not all examples were appropriate for the decorative details. To the contrary, the architecture of Vladimir and Suzdal has many spectacular examples that could look great in a cinema frame. In addition, the already mentioned outstanding nobility and slenderness of Vladimir architecture correspond perfectly to a fairy tale with its clear images of good and evil. It also has some analogy to strength and will - Kiev is attacked by tugar tribes and Romanesque architectural features of the Vladimir style create a picturesque image of a fortress opposing the enemy (like the white city of Minas Tirith of the "Lord of the Rings" film trilogy, inspired by Romanesque architecture as well).

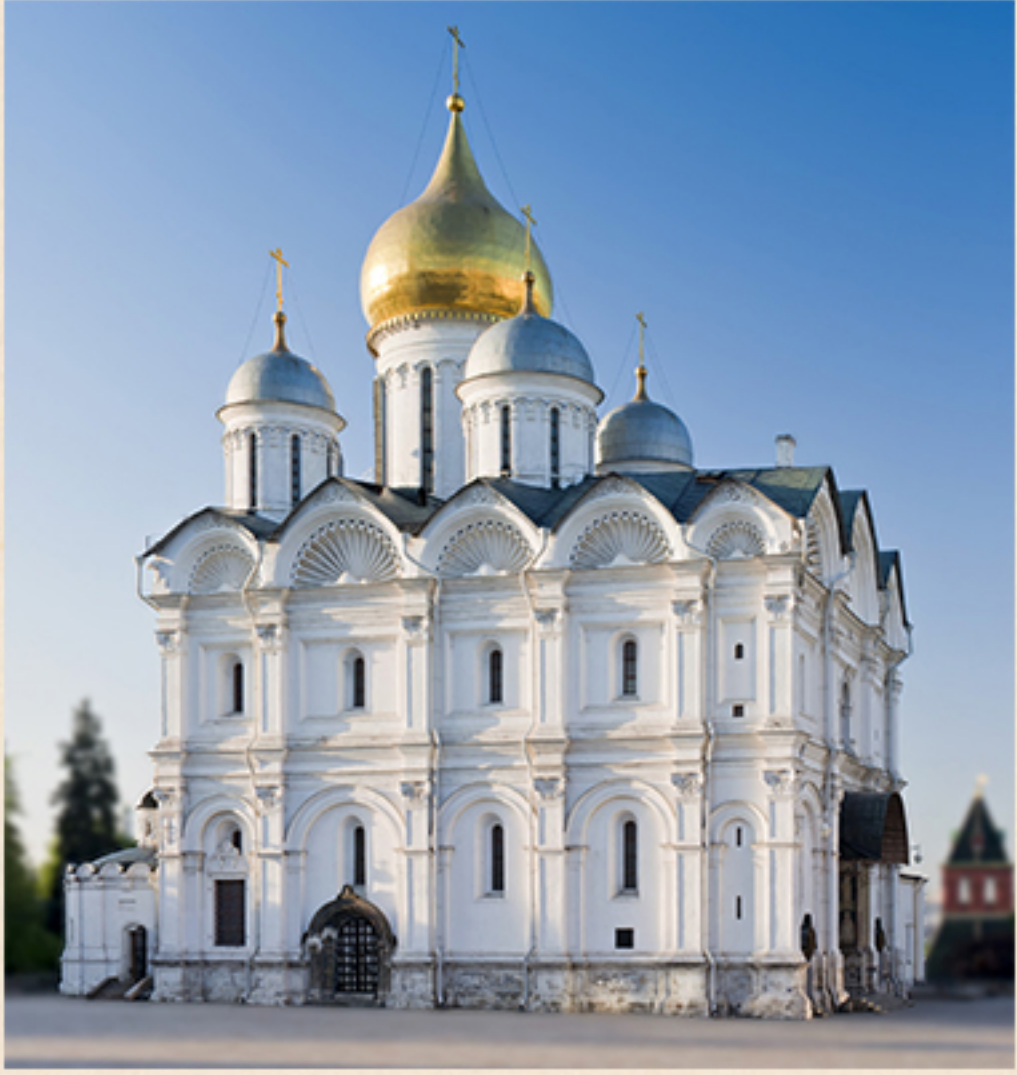
Moscow state

Moscow has passed a long way in a struggle for the supremacy over all Russian lands. By the XVth century it has gathered all of them into one single Russian state. Tver, Ryazan, Pskov have been subdued, mongol-tatar yoke has been subverted, cities captured earlier by the Grand Duchy of Lithuania have been retaken back. New capital needed a new political image, that’s why a construction of a fundamentally new fortress began instead of obsolete one. Now it is known as the Moscow Kremlin that still everyone can see in the center of Moscow.

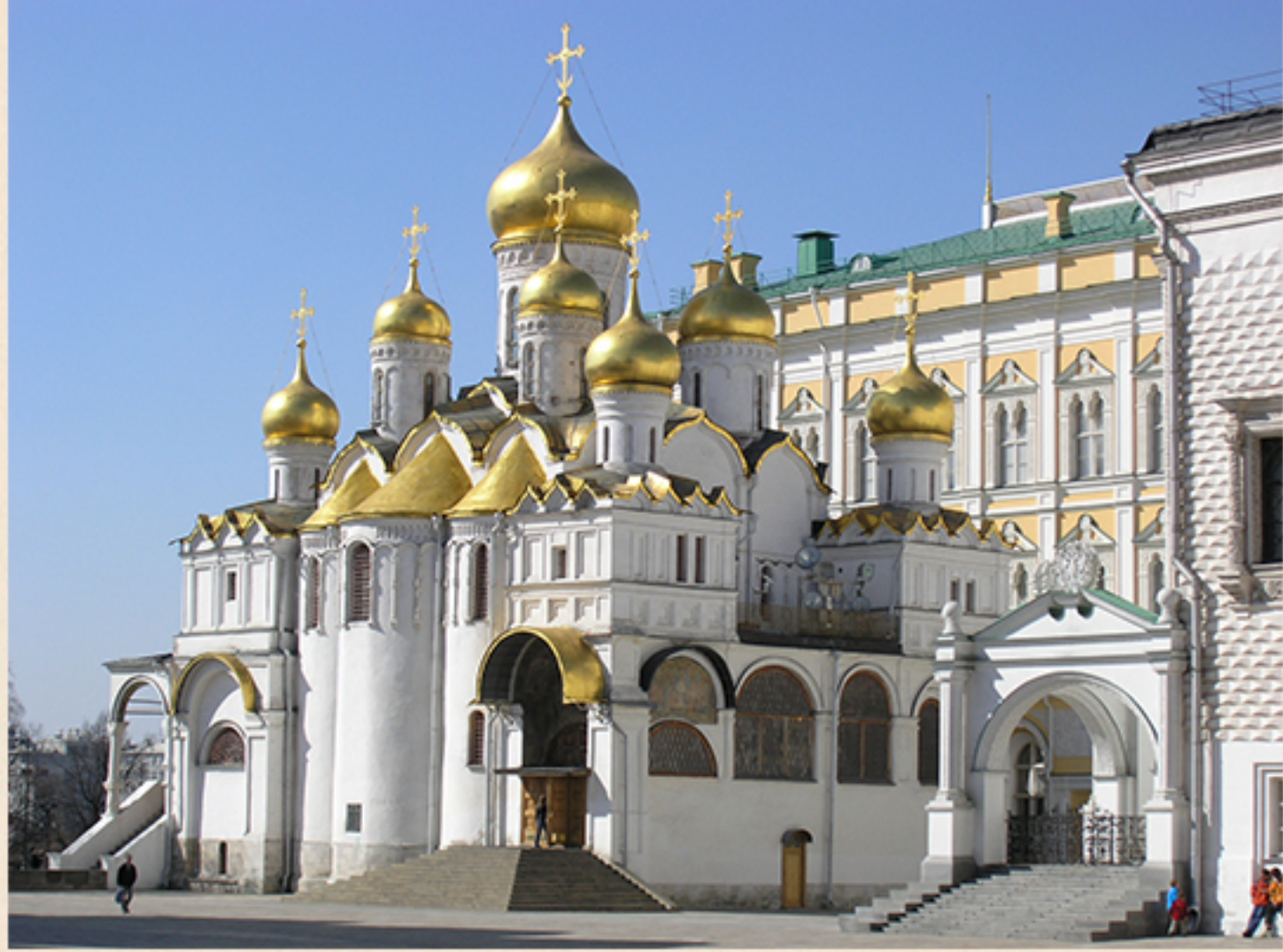
Moscow architecture absorbed the heritage of the Vladimir school enriching it with the traditions of other Russian lands. Tented roofs were introduced from the North, Renaissance trends were used for the new Kremlin structures, mannerism is felt in Russian Uzorochye (rus. “Patternwork”) so typical for merchant Moscow districts and strongly associated with the fairy tale “terem” and “gingerbread house” style. During those changes Moscow architecture becomes more dynamic, decorative and fanciful than anything before it. Finally, we can witness traditions of the European Baroque in the so-called Moscow (or Naryshkin) Baroque style which prepared Russian architecture for the ultimately new epoch characterized by Peter the Great’s European transformations (not described in this work).



The main cathedral of the Moscow state, the Assumption Cathedral, was built by an Italian architect Aristotele Fioravanti. He managed to combine the achievements of his native country with the heritage of Russian builders. Taking the Assumption cathedral of Vladimir as an example (see previous page) with his arcaded friezes, semi-circular zakomaras and narrow fortress-like windows and combining all that with the architectural division of the facades, equal width of the zakomaras, five apses instead of three (not much protruding from a wall), Moscow architecture resulted in a unique new image of a religious building.



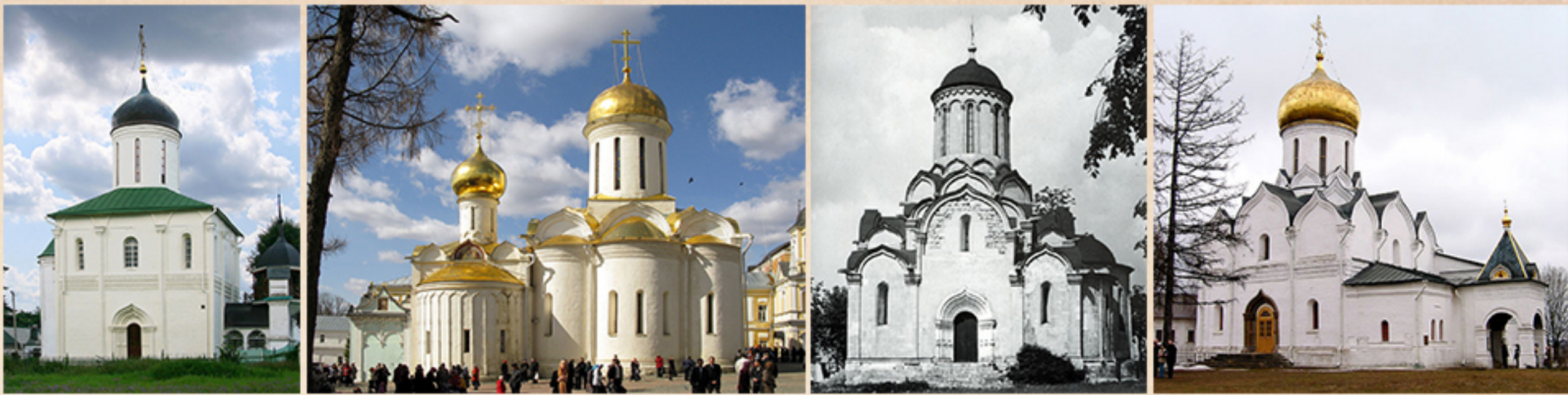
The cathedral of the Archangel for long time had been the burial place of the Great Dukes and tsars of Moscow (before the relocation of the royal burial tradition to St.Petersburg). It was erected under the supervision of an Italian architect Aloisio the New and combines Russian and Italian traditions – zakomaras and five-domed structure are complemented by Renaissance order division with cornices and pilasters of the Corinthian order. Zakomaras are also divided from the wall by additional level of cornices and decorated with the shell-shaped ornaments (rocailles) embedded inside. This venetian feature became favorite in Russian architecture very soon.



The cathedral of the Annunciation, originally the personal chapel for the Muscovite tsars, combines early Moscow and Pskov traditions.



The monastery cathedral in Romansburg from Syberia II quest shows definitive features of the early Moscow architecture, characterized by yet strong Vladimir architectural traditions (white stone, narrow loophole windows, arcaded friezes) and keeled shapes of zakomaras and domes, forming prominent “onion bulbs”. Kremlin cathedrals were highly likely to be the main references here, though we also see Gothic and Art Nouveau features. Unfortunately the interiors of the monastery are not well designed from the point of Russian architectural and religious painting traditions.



Moscow architecture is very diverse. It has developed from Vladimir school principles (early samples of this period are the Assumption cathedral in Gorodok, Trinity cathedral of the Trinity Lavra of St. Sergius, the cathedral of Andronikov monastery in Moscow, the cathedral of Nativity of the Most Holy Theotokos in Savvino-Storozhevsky Monastery) to the joyful and gladsome compositions of the Russian (Moscow) patternwork and magnificent tented roof (shatyor) architecture. These features are described further on the pages.

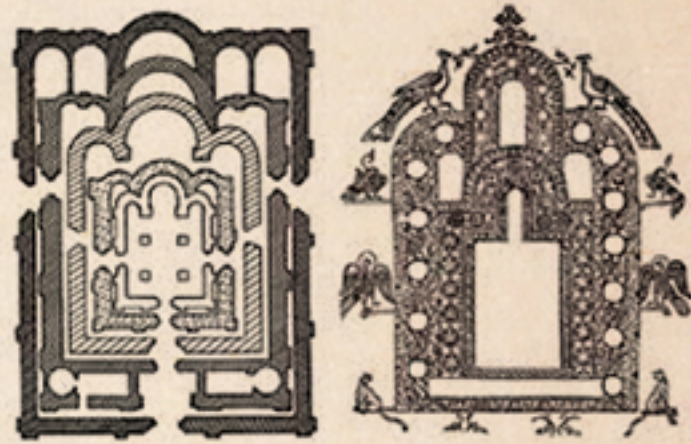


The Ivan the Great Bell Tower is a tall pillar structure consisting of two vosmeriks (eight-cornered cylinders) and a dome atop them. It resembles watch towers designed to observe the surroundings. But besides its functional purpose the belfry united the whole ensemble of the Moscow Kremlin. The edges of the belfry are reinforced by wide pilaster-strips, each level is complete with arch openings. In the later epochs tented extensions with pyramids were added. All together they formed a solid and expressive architectural image.

“The defense of Moscow against khan Tokhtamysh” – a historic piece of art done by Russian painter Apollinary Vasnetsov, who was also fond of archeology and studied Moscow ancient sites to later restore them in his visual works. This one shows an early Moscow architecture sample, very much resembling those seen above this page – small and compact white-stoned single-headed churches yet following Vladimir traditions in building.



Silhouettes of the Moscow Kremlin churches in overlay (with the increase in growth):
The Church of the Deposition of the Robe, Annunciation, Archangel, Assumption cathedrals.
There is a certain correspondence in the overall size and height of the central heads of smaller churches with the lateral heads of large churches. The silhouette of the Archangel Cathedral together with the central head is graphically superimposed on the outlines of the small heads of the Assumption Cathedral. Small heads of the Archangel Cathedral find their correspondence in the central head of the Annunciation Cathedral. Due to this kind of dimensional relations in the ensemble of the Moscow Kremlin a special aesthetic effect is achieved. It is a smooth increase in the scale of related (in their general shapes) architectural structures from secondary to main. This helped to create a pulsating and simultaneously exclusively holistic architectural ensemble.

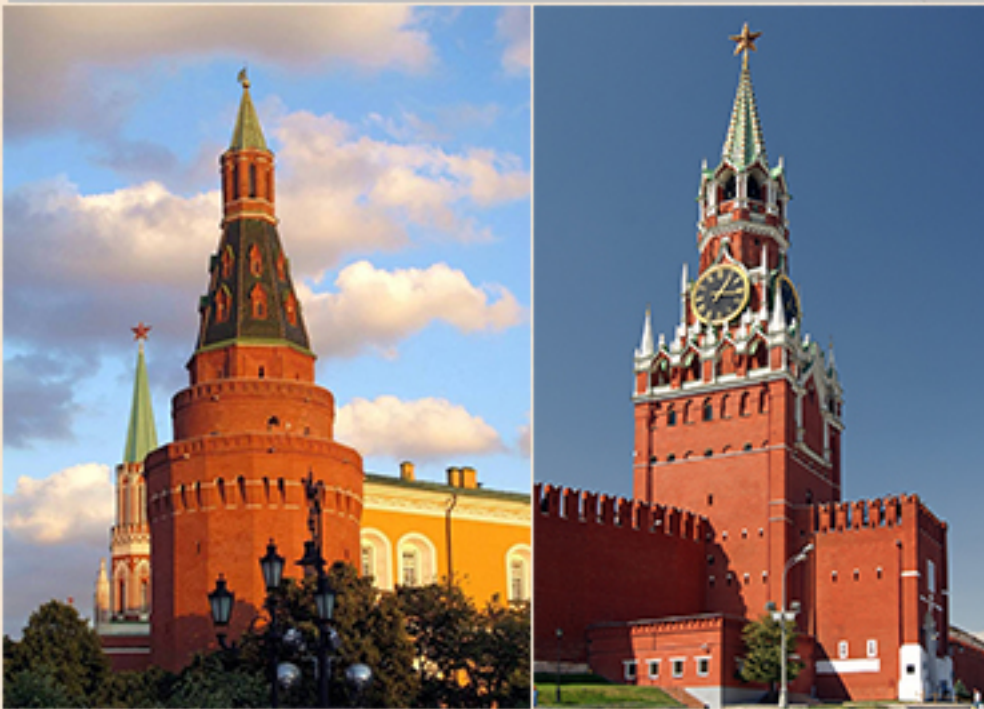


The layouts of Moscow temples in overall scale:
Assumption Cathedral, Archangel Cathedral, Cathedral of the Ascension monastery, Annunciation Cathedral, The Church of the Deposition of the Robe.
Right: frontispiece of St. George's gospel. XII century.





Cedar cone, tulip bulbs, outlandish overseas fruits, patterned embroidery and lace - such associations are caused by the Trinity Church in Nikitniki, nearly born in the noisy life of the Kitay-gorod merchant district in Moscow. Though such architecture does not raise the soul, it does not frighten visitors as well. This is a true sample of new Russian Patternwork (rus."Uzorochnye") style.



In the XVIIIth century the Kremlin towers were crowned with elegant stone tents with tiles. Some of them, as the famous Spasskaya tower, acquired white arched stone belts with pyramidal pinnacles at the corners, gilded statues and weathervanes. At the top of the towers stone gazebos with round and keel-shaped arches were built. The architecture of the new decorated spires for the towers features the mix of Western European Gothic and Russian Patternwork details. It is not surprising that the features of the new decorative style (which replaced the monumental and concise manner of architects of the past) were used in the design of the fortress architecture in the "Allods Online" MMORPG, offering numerous areas of interest for the player.



Merlons have a forked shape, resembling a swallow's tail or the outstretched wings of an eagle. According to a legend, the supporters of the imperial power and the opponents of the Pope in Italy labeled their fortresses in this manner. Since the Moscow Kremlin was built by Milanese masters, similar historical traditions were transferred here. Perhaps the architects thought that the imperial symbolism would be closer to the Moscow Grand Duke.



Slukh (literally "hear") is an opening in the tent of the tower or belfry. They are made for the bell ringing sound not to fade under the vaults of the roof but to go out of the tower. Lightening is the other reason for their appearance.

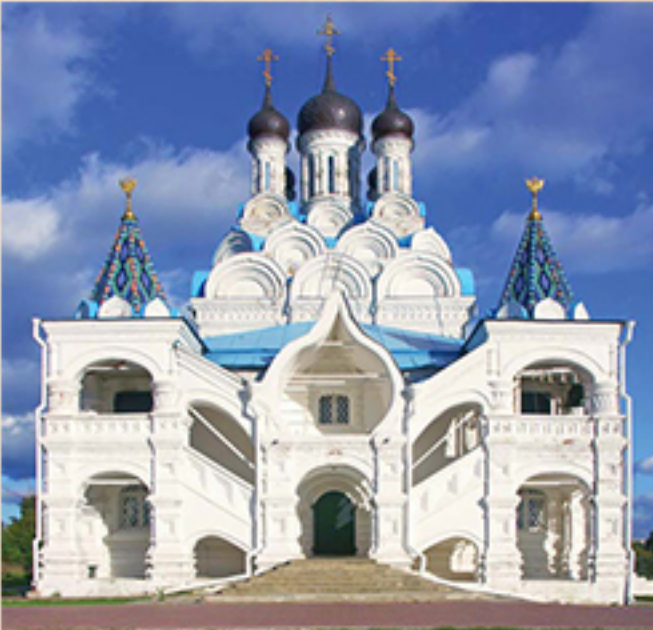


Sukharik (rus. literally "rusk" or "something that is drying") is a decorative element, known in the western tradition as dentils. It forms rows and can be stepped shaped (like gorodchatiy belt, described earlier) or take some other fairy-like forms.

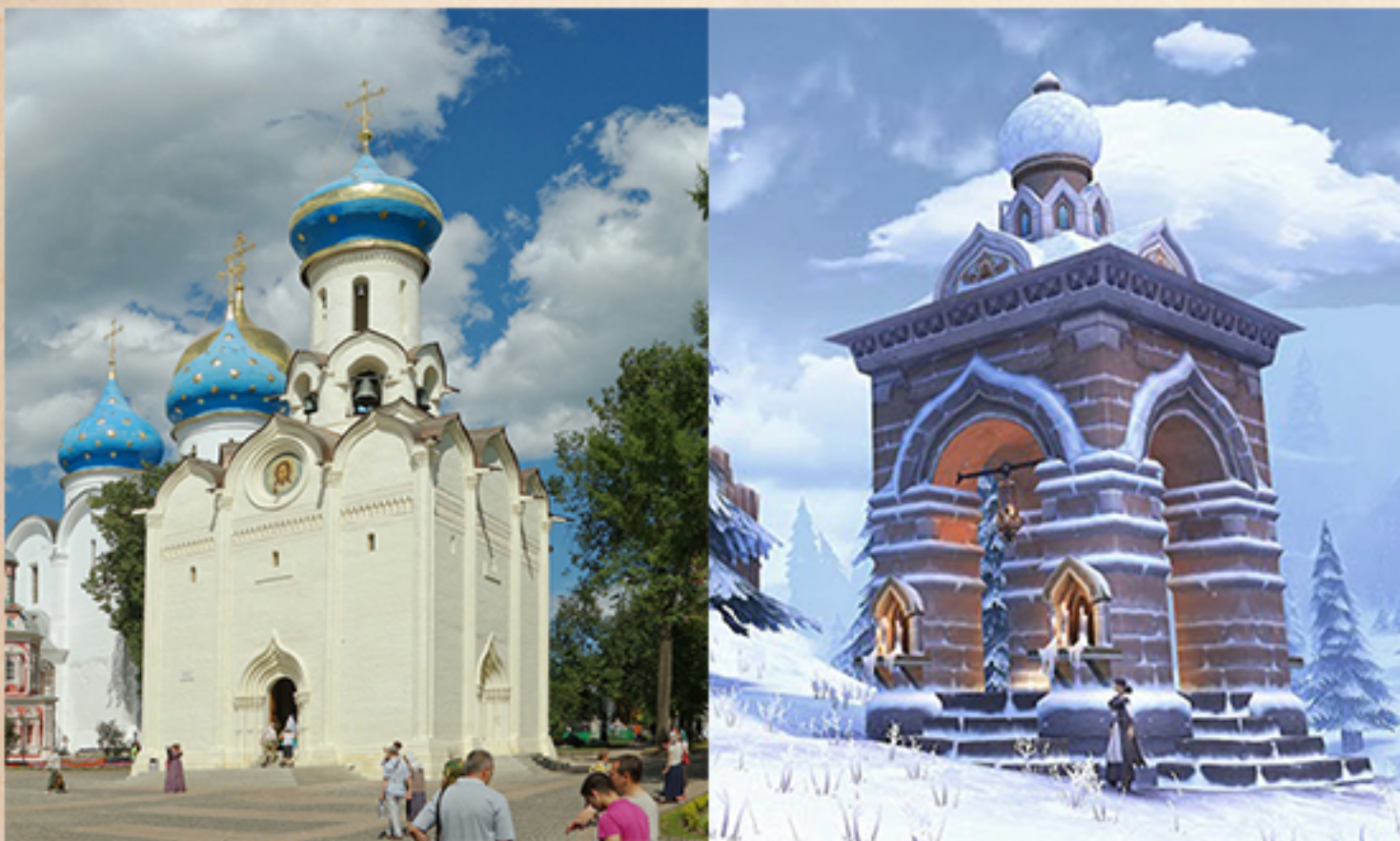


Dynka (rus. "melon") is a decorative element of the Russian architecture in XV-XVIIth centuries. It looks like a fruit-like thickening situated on the pillars, columns and pilasters. Usually it is divided into vertical parts though may remain smooth, may be decorated with carving or painted. Symbolically dynka is connected with the perception of paradise, the tree of Edem. In this case the pillar basements serve as roots, capitals as their crone and those ball-like bulges as the fruits of a heavenly tree.

Bochka ("barrel") is an established definition of special type of roof in civil and religious architecture. It has a complicated shape, in general resembling a semi-cylinder (sometimes a cylinder) with a pointed top and hence a keeled gable. The gable in bochka is like a slice of an onion-shaped dome. There is also a crossing bochka having connection with so-called "cubic cover". Bochkas were popular in XVII-XVIIIth centuries and mainly in wooden architecture, especially on the Russian North and in palace structures (palace of Alexey Mikhailovich being the most famous example, above). Stone bochkas are rarer (i.e. Annunciation church in Tayninskoe, to the right). In the XIXth century bochka disappeared due to trussed rafter structures and was discovered again in Russian revival and neo Russian styles in the end of XIXth-beginning of the XXth century (like Yaroslavskiy railway terminal in Moscow, Church of the Holy Mandylion in Abramtsevo).



The upward-looking pillar of the Church of the Ascension of the Lord in Kolomenskoye with its vertical pilasters, kokoshniks that "grow" one above the other ("mountain of kokoshniks"), Gothic gables and a high tent create a noticeable dominant in the landscape. The church is really going up to heaven. Tents were usually applied to memorial, peculiar monuments that attract attention. The same tower-like accent is shown in the concept of "Allods Online" MMORPG.



"Ijé pod kolokoly" can be translated as "(church) under the bells". It means a type of the church where the belfry level is constructed over the interior of the cathedral. This type was popular in the religious architecture in the end of the XVth - first half of the XVIth century. "Under the bells" is a unique type of church characteristic exactly of the Old Rus' and that has no analogues on the West. It has different architectural solutions and allows creativity for the builder but in the majority of the cases it is a small pillar-like church. On the example shown here draws a parallel between the church of the Holy Spirit in the Trinity Lavra of St. Sergius and a small Kania sanctuary from "Allods Online" MMORPG. The idea of the belfry has been transformed into a row of windows, but the initial historical concept is still clearly recognizable. The lower sample from the same game shows the "under the bells" principle as it is.



The residence of the metropolitan bishop Iona Sysoevich, the so-called Rostov Kremlin, is known to everyone who has seen a soviet comedy movie "Ivan Vasilievich changes the profession" ("Ivan Vasilievich: Back to the Future" in the USA) by Leonid Gaidai. Despite its name this complex is not meant for defense and has only representative functions. Though not being a true kremlin, it inspired the concept artists of "Allods Online" to take some elements for the design of in-game fortifications as can be seen in a tower from Kania camp. Elaborated windows with kokoshniks and framing, onion shaped dome (not common for fortress towers) and decorative belts along the walls can be seen here.



Kubyshka (rus. "crumpet") is a bootle-like pillar with a smooth widening in the central part. The shape of this column is squat, thickset, puffy and thus, resembling a jug.



Poval in Russian wooden architecture is a smooth enlargement of the upper part of the log structure, preventing the wood from extensive humidity during rains (for the same reason curved roofs of Asian architecture are spreading afar from the structure pillars). Poval is a foundation for tented and inclined roofs. More often poval can be found in eight-cornered structures though transitions from a square to poval also exist. Poval was later implemented (as well as many other wooden features) into the stone architecture. Such stone reinterpretation can be seen in the machicolation-like cornice of the tented tower of the St.Basil's cathedral.



Nalichnik (rus. "on the face") is a platband/architrave, decorating a window, it consists of a gable (usually in the form of kokoshnik), two vertical elements (usually composed columns) and a window sill. In the wooden architecture it is a functional element, covering the chink between the wall and window box.

Composed column is a decorative pillar, compiled from small carved decorative modules. Such columns were very popular in Russian Patternwork style.



A "Peacock's eye" is a tiled motif which became popular in the era of Russian patternwork characterized by intricate shapes, abundance of decor, complexity of composition and picturesque silhouette. Introduced by the Belarusian master S. Polubes, this decorative element consists of two parts: a stylized pomegranate flower, which received its sonorous name because of the similarity with the "eye" on the peacock feather, and a cornice in the form of a Baroque festoon pendant. Those tiles were composed in long ribbons with a rich floral decor, thus forming a rich frieze.

Tented churches – a special kind of Russian religious architecture connected with the difficulty of reproducing all the forms of byzantine-originating religious buildings in wood. Instead of a complicated dome the building is covered with simpler tented roof that has deep roots in Russian architecture (the XVIth century and even earlier). Lately tented roofs were made from stone and had no straight analogues in Western architecture.

Tented roofs defined the panorama of Russian villages and cities. Stone churches were rare, wooden ones were more popular. Their elongated silhouettes were outstanding from the main array of city buildings.

The base for tented roofs was the eight-cornered level of the temple – “vosmerik” (“eight-cornered”), which in its turn often stood on a square basement -“chetverik” (“four-cornered”). “Vosmerik on chetverik” was a popular structure as it helped to make a transfer from the ground level to the tented roof. Sometimes only chetveriks or vosmeriks were used for tented roofs. Rarely churches had more edges.

The church may have more than one tented roof, it can have additional decorative ones on the sides, where the narthexes are situated (Nativity church in Putinki in Moscow being one of the most famous samples, see below to the right). Interesting to note that all tented roofs have a small dome, with its own cylinder and more often onion shape. Sometimes it has an inner side in the interior of the temple, in other cases separated from it by inner vault.

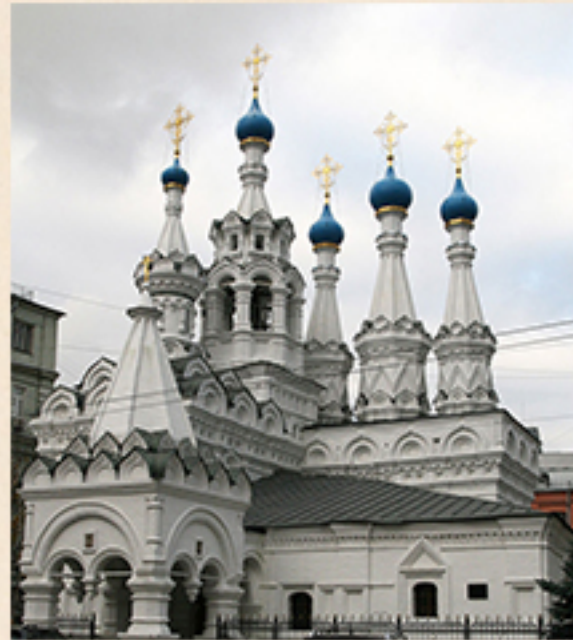
It is worth mentioning that not only churches made use of tented roofs. Supposedly originating from wooden fortress towers, they can be found in wealthy habitations of that time too.



As it has already been mentioned, Moscow medieval buildings are sometimes compared with a cake or gingerbread houses for their festive and joyful mood with many colorful details and intricate ornamentation. No wonder, that it inspires fantasy artists like Avant Choi (<https://www.artstation.com/innocoi>) who's work we just see here. A town reminiscent of the St.Basil's cathedral also has the features of the buildings by the Austrian architect Friedensreich Hundertwasser (known as postmodern Gaudi). There is a wonderful interchange of shapes and colors, of grace and dynamics that arouses a real fairy-tale feeling.



Primarily all nine churches of the Pokrovsky (St. Basil's) cathedral were built as separate churches later united by roofed galleries. Three different types of churches meet here: central tented church with vosmerik on chetverik, four middle towers with eight-faceted leveled walls and four smaller churches in between with kokoshnik pyramids. All chapels except for the central one are completed with domes. A slender central tent has taken the role of the leader in the composition. Its exterior is elaborately decorated with different kokoshniks and up to the end of the XVIIIth century it had 8 more small decorative heads on a special shelf in the middle level of the central tower.



Apple is a ball finishing the dome, situated right under the cross.

Glavka (“small head” or cupola) often tops the tented roof. As well as big dome, small dome may also have different shapes: helmet, onion, umbrella, etc.

Neck is a blind narrow cylinder without windows.

Vosmerik is an eight-cornered construction or its part. “Vosmerik on chetverik” is a popular scheme established in the Russian wooden architecture. Chetverik is in fact a lower part of the building, the blockhouse upon which vosmerik is placed. Sometimes there can be several eight-cornered constructions and in this case a pyramidal composition is formed. This type is mainly found in churches and in particular, belfry towers, covered with tented roof (shatyor) or dome. For example, as it has been already mentioned before, Ivan the Great bell tower has such multi-leveled vosmerik structure.

Glava (“head”) is the cover of the dome, installed on the light drum. Decorative blind drums have glavki (“smaller heads”). Russian churches usually have onion or helmet shaped heads that differ by the general diameters. Onion shaped heads have a maximum diameter bigger than that of the drum, the height is usually not less than the width, also, there is something barrel-like in general silhouette. Helmet shaped heads have a maximum diameter at the base and their height is always less than the width.

If the possibilities allowed, the heads were covered by a thin layer of gold but more often were simply covered with metal or lemekh tiles and painted in different colors.

Lemekh is in fact a shingle, roofing material in the form of small wooden plates attached overlapped (as scales). Its name in Russian is the same as of the plowshare because it resembles its blade shape. Lemekh was used for circular or semi-circular roofs, like domes (including onion shaped), barrels, kokoshniks.

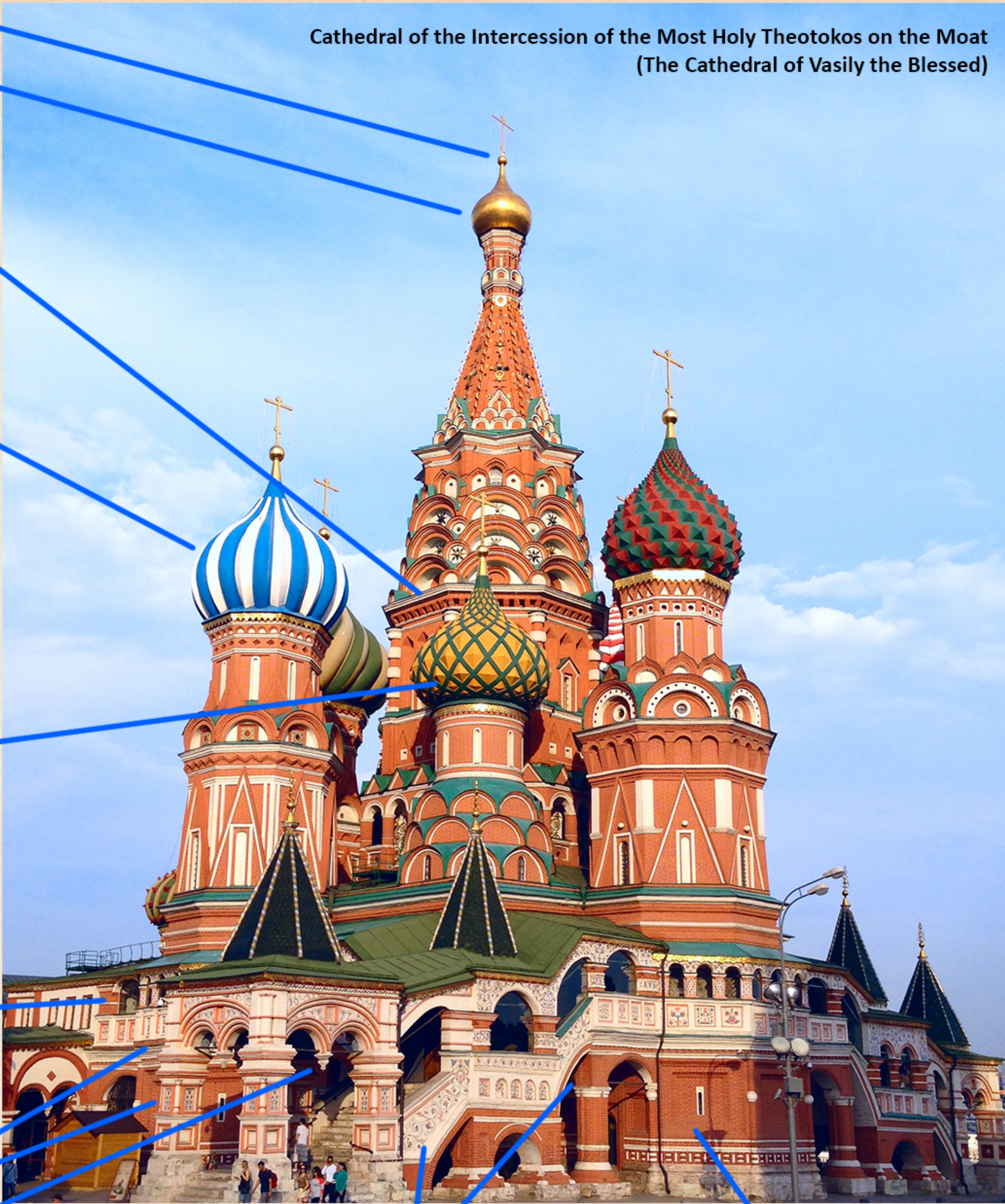
Lemekh has a pointed end, usually stepped or triangular. It can be rounded too. Volumetrically lemekh is convex according to the surface of the dome that makes its manufacture a difficult and qualified issue. Each segment is unique as each row needs its special form, hence it can be produced only manually (at first only axe was used for it, later different tools appeared).

Gulbische (ambulatories) is an open terrace or covered gallery surrounding the building on the level of podklyot's (ground floor) ceiling. First it was used in religious buildings but sometimes can be found in secular architecture too. Gulbische supposedly originates from Pskov habitations of the XIth century.

Shirinka, a kind of caisson, is a widely spread decorative element of Russian architecture in the XVI-XVIIth centuries. It is a square deepening in the wall, sometimes with a glazed tile or carved decoration inside. Shirinkas may form long rows and columns along the wall. Prospectively repeated frame of shirinka elements makes it close to European panel décor.

Girka (rus. “weight”) is an architectural detail in the form of flipped pyramid (or a flower or other decorative element), that is hanging on a hidden iron rod in the masonry or brickwork. Girka is acting as a support for two small decorative arches situated under a bigger arch that is uniting them. Without girka but with an additional pillar for the arches it would be a biforium, which is not always convenient due to the central pillar that disrupts normal passing through the portal. Girka also creates a magic feeling that two arches are resting on the element that has no base under it.

Cathedral of the Intercession of the Most Holy Theotokos on the Moat (The Cathedral of Vasily the Blessed)

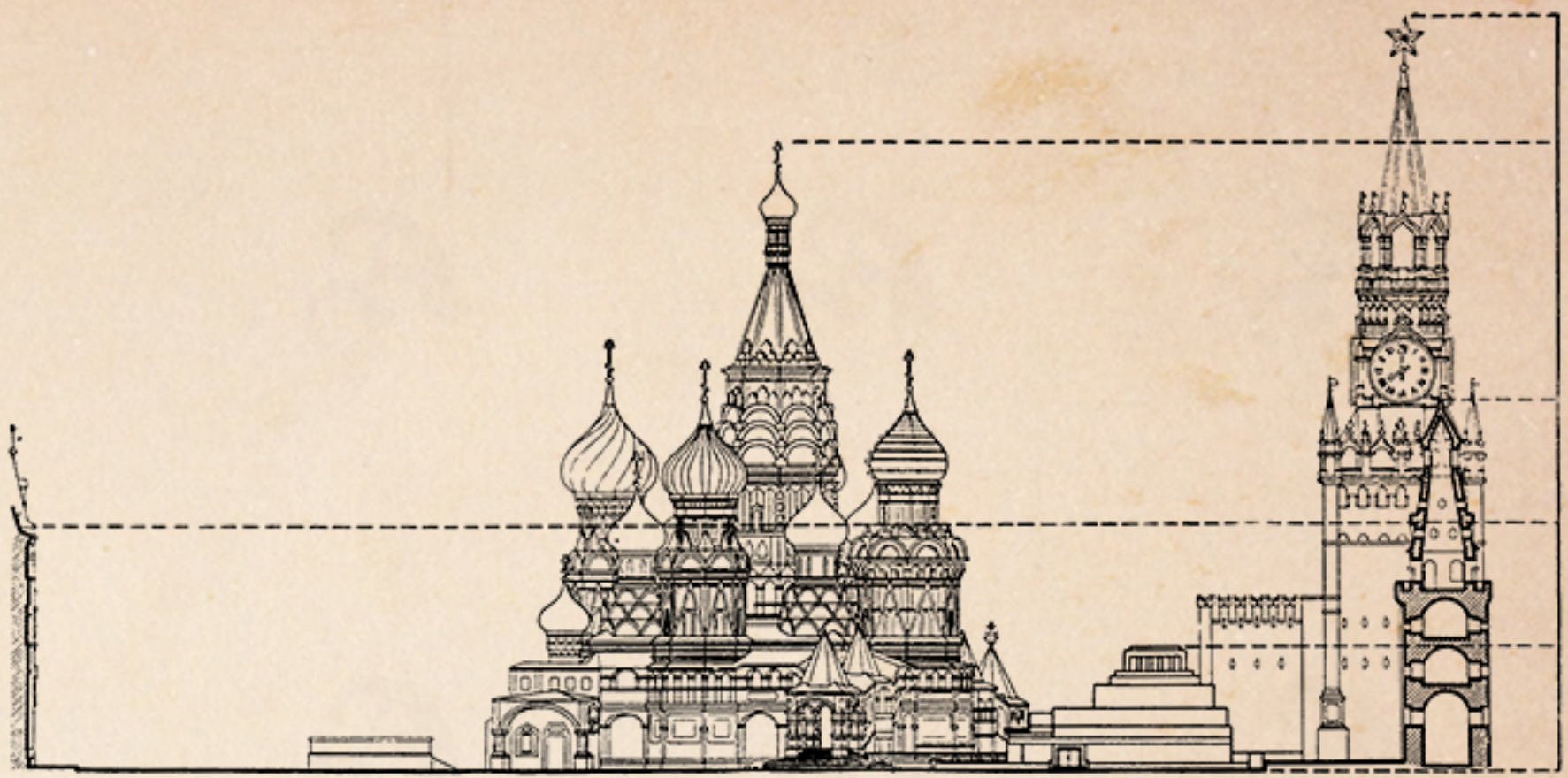


A **creeping arch** has its two bases situated on different height. Creeping arches were used while constructing stairs and porches. They could be reinforced by sloping tightenings.

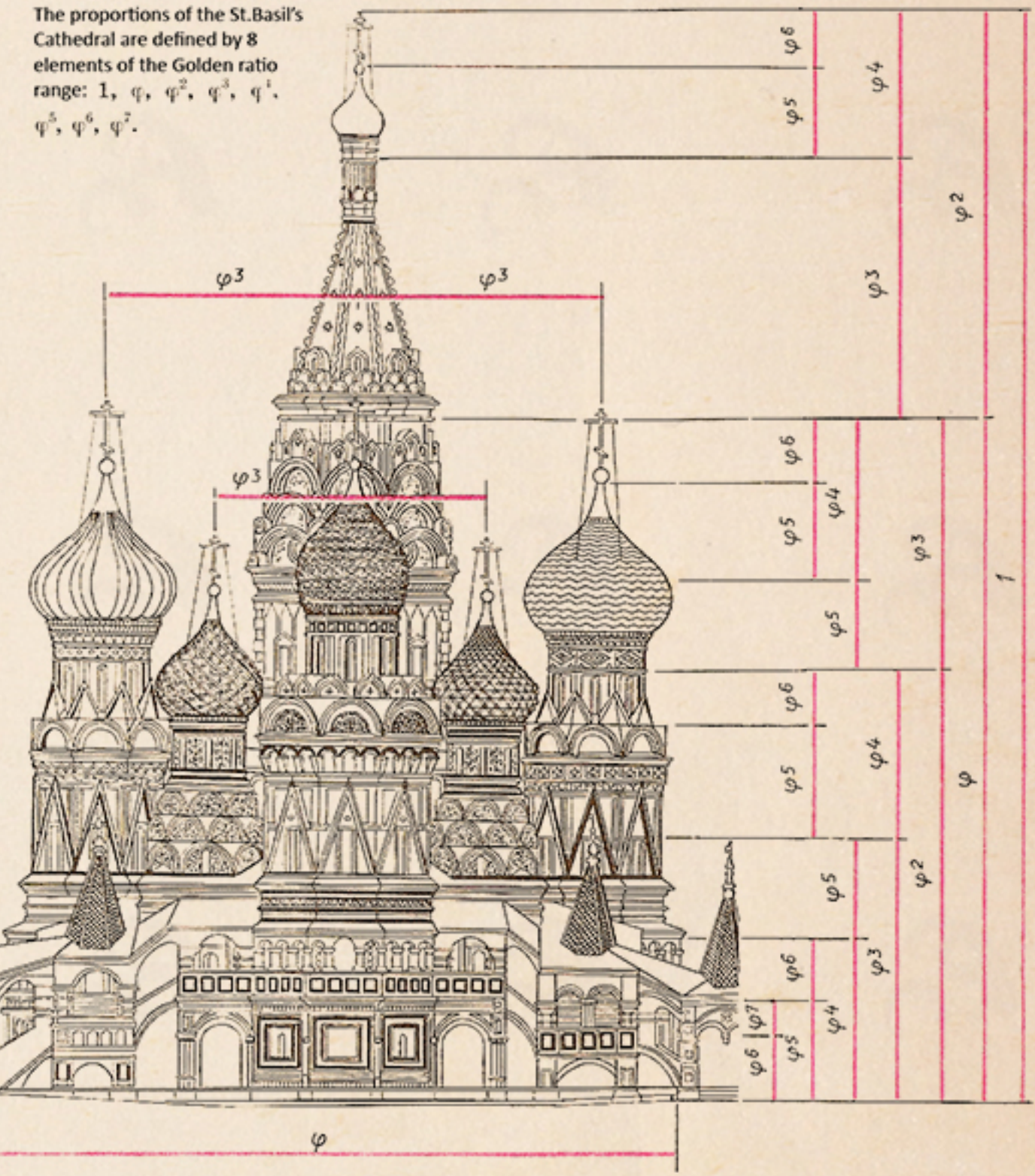
“...thus ordered them to build a church in stone with eight altars; the masters, guided by the Divine Providence, erected nine chapels, thus not as ordered but according to sense given to them by God.”

(literal translation of the old Russian manuscript)

Podklyot is the annex (basement, ground floor) of the stone or wooden building be it a house or a church; usually used for utility and household purposes. It forms a high pedestal for a building above it.



The comparative analysis of the heights of the Lenin's mausoleum and other buildings on the Red Square in Moscow.
If the height of the Mausoleum is equal to 1, then GUM department store - 2,
Senate tower - 3, State Historical museum and Nikolskaya tower - about 4, St.Basil's cathedral - 5, Spasskaya tower - 6



The Cathedral of the Intercession (also known as the St.Basil's Cathedral) resembles a stone flower. It was also called a Heaven city and Jerusalem.

The building is very dynamic in its forms. It is hard to define its beginning and its ending. The whole building seems to be dancing on the Moscow Torg (marketplace that became the Red Square). In fact, the cathedral does not have the main facade. Multi-chapeled churches have existed in Russia since old times. But only here this concept became the main idea of the whole layout.

The basis of the composition is formed by a central tall tented-roofed church with a small dome. It is surrounded by four smaller and massive towers, another four even smaller towers placed between them. Growing to the center, they do not form a pyramid in fact. It is like a friendly dialogue in which all the participants have their voice, since listening to others. Though the central chatyor comes taller than the rest of the towers, it does not suppress them with its size. Being more massive in proportions the side towers do not strive into height. The smallest towers are slender and resemble the main tower in this respect, but their form echoes that of the big side towers. St.Basil's Cathedral is not totally symmetrical but here a balance of different shapes and masses has been uniquely found. It is not as geometric and rationalized as Italian Renaissance buildings, though it also lacks the excessive decoration of the Indian temples (with which it is often compared). The Cathedral of the Intercession has been created on the border of two worlds – that of the East and the West. It is a well-organized and orderly organic whole. Moreover, it symbolizes the idea of the unity of the Russian lands around Moscow. Like the domes of the St.Basil's cathedral they are so similar but so unique simultaneously. But together they form an entity like a lively organism of the Russian state.

Harmony is a necessary condition for the beauty to exist. Separate details created by God may seem ugly and unreasonable but combined, they come to harmony. Parts form a single and perfect unity. Such perfect harmony has been found in St.Basil's Cathedral as well.

By the second half of the XVIIth century the Russian architecture began to turn more to civilian tradition rather than religious (that was predominant before that time). New scientific discoveries and interest in human personality were among the reasons for such changes. During this period architecture turned to rational forms, order division and separate parts of the Western European decoration.

Secularization process both in culture and architecture in particular has already begun in Russian patternwork where we can notice the transformation of the language from strict and simple to more decorative, complicated and picturesque. In the long run such mix of cultures and speed of changes resulted in the appearance of the new style - Naryshkin Baroque, also referred to as Moscow Baroque or Muscovite Baroque. Being closely connected to the Russian Patternwork, it still shows distinctive features of the European Baroque. The style is distinguished by vertical energy, flowing through the building and going out in lush waves of patterns.

Baroque and Mannerism, Gothic and romantic, Russian wood and stone architecture - all come together in new buildings that have a double scale - macroscopic vertical as well as miniature decorated one.

Red brick and white stone (as in Netherlands, England and Northern Germany) are also peculiar for the style as well as polychromic ceramics, gold-plated wood carving for the interiors (the heritage of the Russian Patternwork and "Grass ornament")

Outer framing is used for decorating edges, portals and windows, not like in the European mannerism where framing helps for the division of the wall surface.

Traditional Russian floral and plant decor inherits baroque opulence. Though at the same time typically baroque motion and dynamics of stairs from outer to inner spaces didn't attain the same level in Naryshkin style.

Naryshkin style buildings are not truly baroque as the composition remained Russian - we still can see elements placed one over the other, no plastic merge of elements altogether. Foreigners who saw buildings in Moscow Baroque style (as well as Russians acquainted with Western European baroque architecture) perceived them as truly Russian phenomenon.



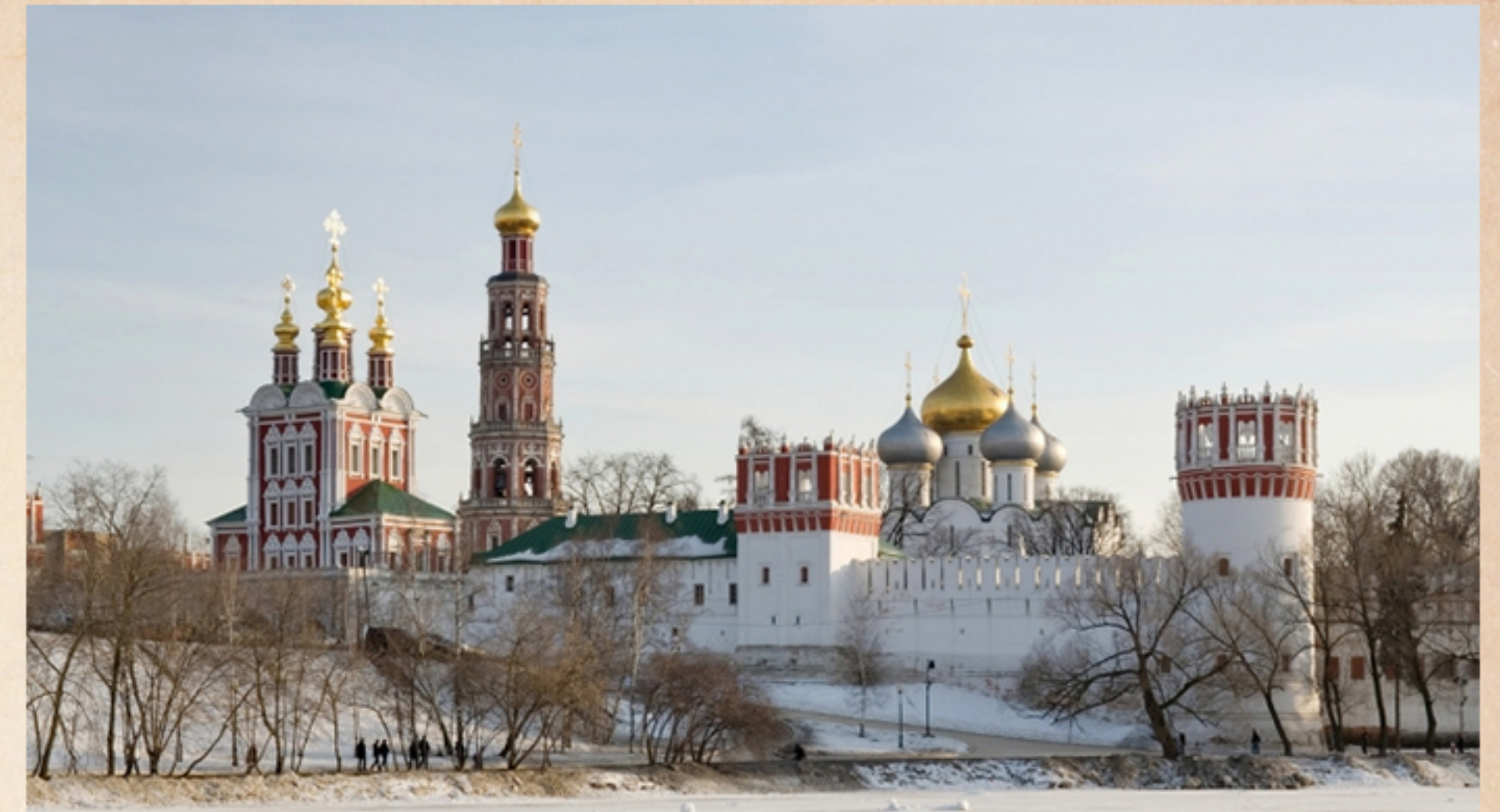
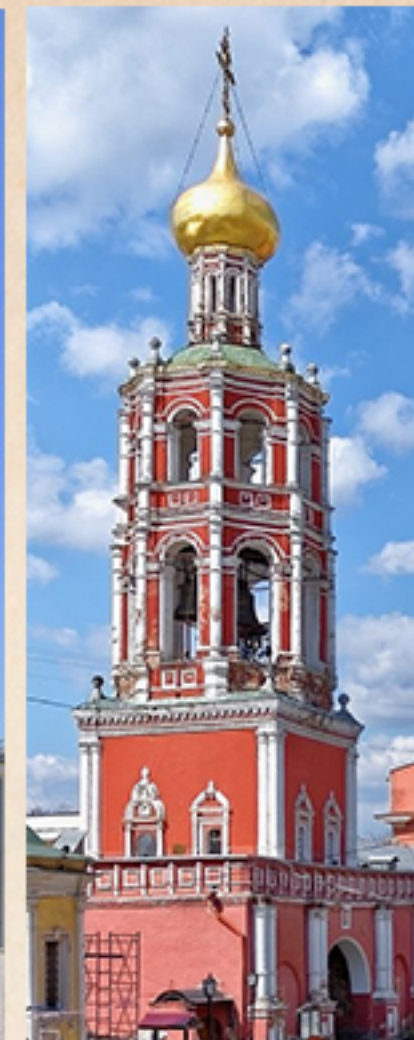
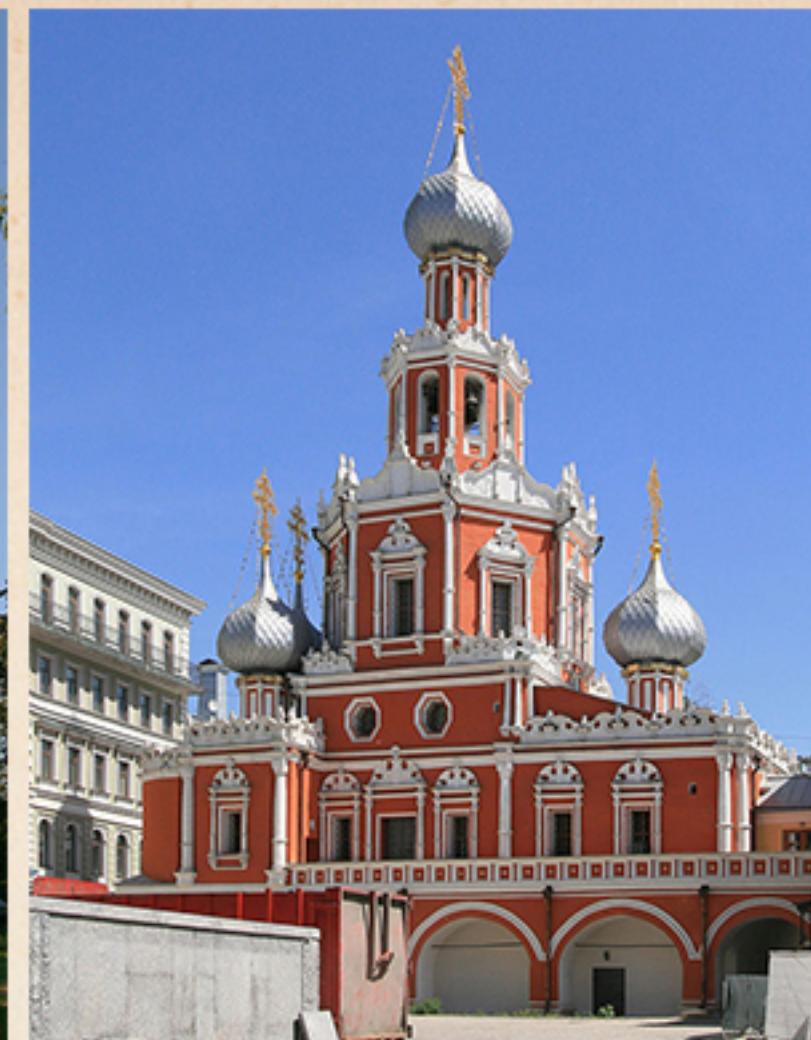
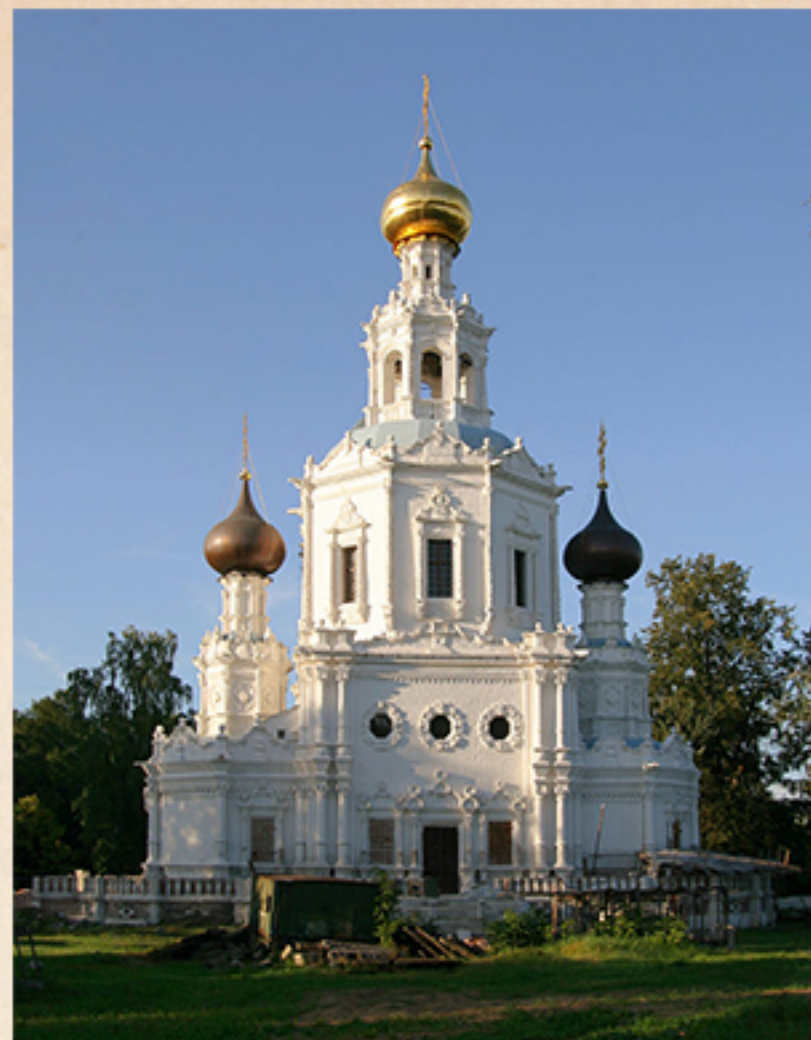
Ridgepieces are the curls that adorned the top of the wall. A typical element of the Naryshkin Baroque. Ridgepiece resembles a sea foam or torn edges of a scroll.



Broken pediment also resembles a ridgepiece. The same elements can be found in Western European Baroque.



Twisted columns - another characteristic feature of the style, echoing the similar elements in the Western European Baroque (i.e. the canopy over the burial of St. Peter in Rome). Rich decoration also suggests a Baroque influence.



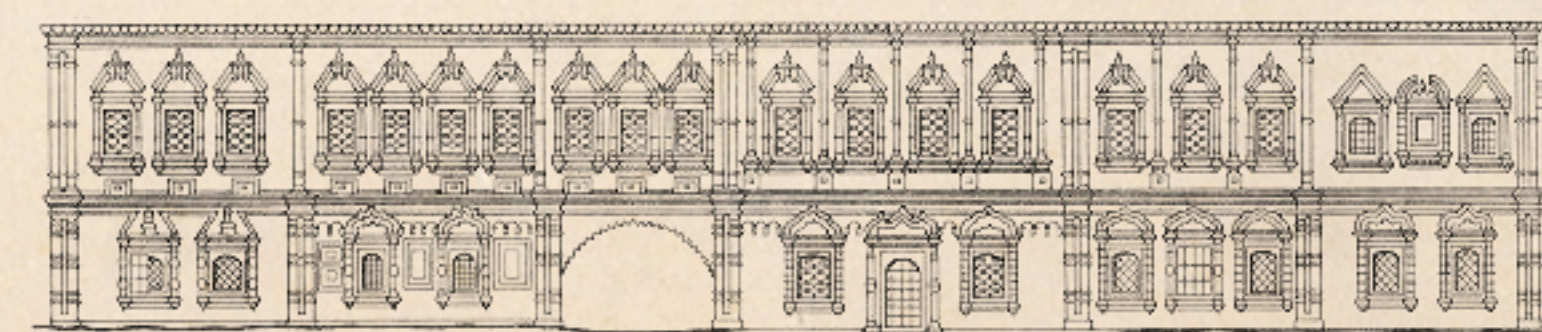
One of the best samples of the Naryshkin (Moscow) Baroque to study, from left to right: The Church of the Intercession at Fili, the Church of the Trinity in Troitskoye-Lytkovo, the Church of the Sign of the Blessed Virgin on Sheremetev Courtyard, the belfry tower of the Vysokopetrovsky (High Peter) monastery, the complex of the Novodevichy Convent (New Maiden's monastery) - the gate church, the belfry, the defense towers.



The Church of the Assumption of the Holy Virgin on Pokrovka street is another bright example of Moscow baroque and one of the most outstanding creations of the national architecture. Being very complicated in shapes it shows wonderful consistency - numerous forms are not sensed separately, protruding. It is a real frozen cloud of red-white laces.



Tall Sukharev tower is one of the best samples of Moscow baroque and secular Pre-Peter (the Great) architecture. It resembles and is on a par with the best Western European town halls. Here is the concept of the tower for an animated movie «Wizard Of Balance. The mystery of the Sukharev tower». According to the plot the tower has a portal to magic worlds.



The chambers of Golytsin in Moscow, the façade reconstruction. Note the asymmetry of the entrance arch and risalit compensated by exceptionally sophisticated decor, where we can see the change of styles - from Patternwork in the lower floor to Moscow Baroque in the second floor.



By the end of the XVIIth century the Kremlin lost its defensive importance and began to turn into a representative royal residence. In 1685 the Kutafya tower was rebuilt again in accordance with the requirements of the era: wooden hipped roof and battlements of the top diameter were disassembled. Instead, the architects created an arcaded fishnet top in the form of the parapet with white stone details.



One of the architectural dominants of the Trinity Lavra of St. Sergius is the monastery refectory with the so-called Refectory Church of St. Sergius of Radonezh. It is revered as one of the best examples of Moscow Baroque. This is a long (85 m) high structure that is surrounded by arcaded basement. The walls of the Refectory are exceptionally richly decorated: almost the entire surface is covered with patterns, half-columns and cartouches of a complex décor. Masters, who created the external decoration of the Refectory Church, chose to paint the building bright blue, yellow, green and red.

Compared to religious buildings secular architecture of Ancient Russia presents even less examples. Truly old buildings could not survive up to our day for many reasons with wood as the main construction material being the primary reason. Even those buildings that were made of stone in the long run were destroyed in the fire of feudal conflicts, wars and invasions.

Pre-mongols' examples are presented by the survived Golden Gates of Vladimir and Kiev (partially, nearly fully restored in modern age), fragment of the princely residence in Bogolyubovo.

Samples of the later periods include fortifications, kremlins and stone chambers. Most of them belong to the period of the Moscow ascension and formation of the united Russian state. The most important monuments of this time are in the Moscow Kremlin - Chamber of facets, Terem and Amusement palaces; Volkov, Romanov, Kirillov chambers in Moscow, Episcopal chamber in Novgorod, Pogankiny chamber in Pskov.

The monuments of the secular wooden architecture will be described in the next part of the research.



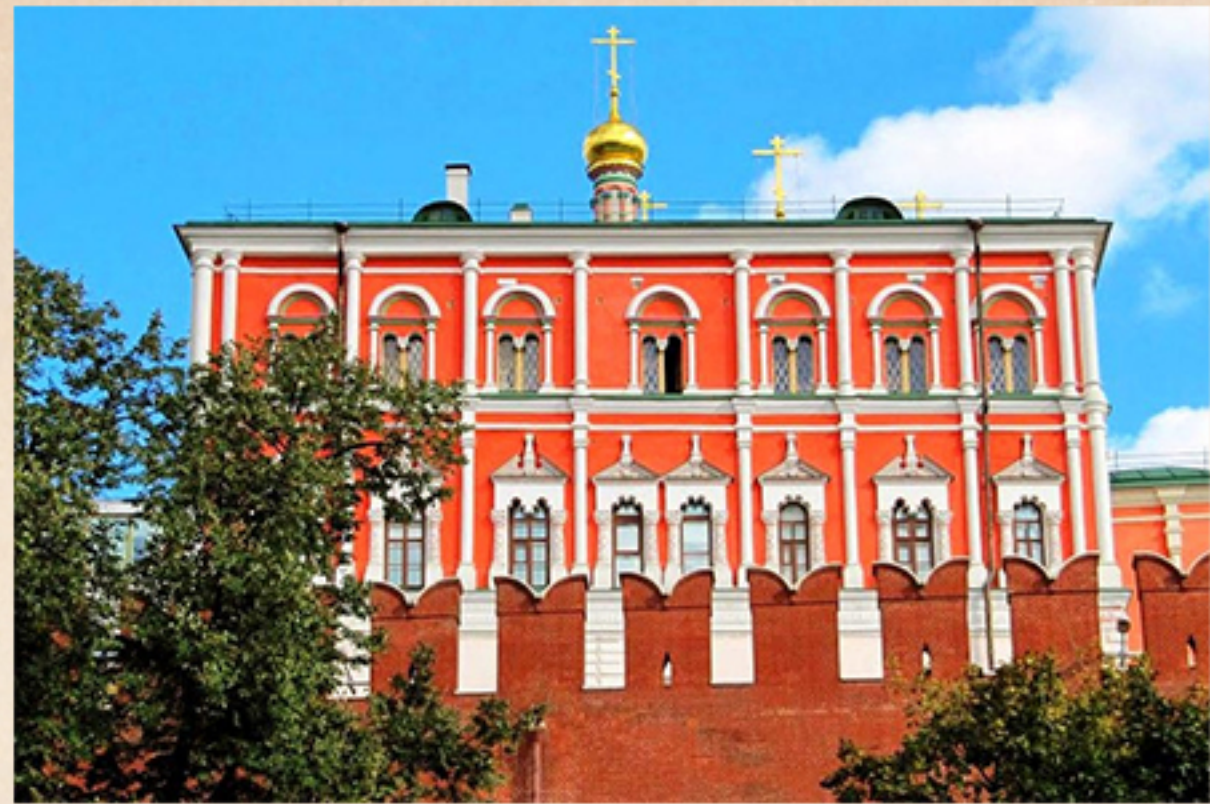
The Golden gate of Kiev (restored in modern age on the remaining basis of the original Golden gate).



The Golden gate of Vladimir (a scale model from the diorama reconstruction of the mongol-tatar siege of Vladimir).



The chamber (palata) of Averkiy Kirillov facing the Cathedral of the Christ the Savior with its elaborately decorated ornate walls.



The Amusement palace – one of the few remaining secular medieval buildings in the Moscow Kremlin (not counting the fortress walls and towers) and one of the finest examples of such architecture.



Enormous Pogankiny chambers form a whole complex with living and storage spaces. Now a historical museum.



Despite the presence of the Duke of Kiev in "Ilya Muromets and Nightingale the Robber" animated movie (2007), the architecture reveals purely Moscow style with its secular, ornate and fanciful decorations, more worldly approach to the art of building. For comparison we can examine Terem palace in the Moscow Kremlin (palace is above and to the right), one of the finest examples of living space of Medieval Russia, preserved to the present day. The general panorama of the city is eclectic and shows the fusion of many architectural schools. Tented roofs, onion and helmet shaped domes, even thick tall gothic-like spires. But given the overall postmodern mood, ironical and grotesque approach of the animated series about famous bogatyr that deliberate and variegated exaggeration seems to naturally complement the story and does not pretend to historical accuracy.



The Grand Duke's palace in the Moscow Kremlin with his multistoried volumes and roofs hasn't survived to present day. We can judge how it looked like thanks to the Chamber of Facets, a throne hall of Grand Dukes and tsars. The exterior shows visible features of the Italian Renaissance. Main facade facing the Cathedral square was totally covered with faceted tiles, rustic work, that gave its name to the building. Majestic hall is spanned by four intersecting vaults that have a single pillar as a base in the center of the interior. Such construction has something gothic-like in its structure as well as the Metropolitan chamber in Novgorod. A plague castle in "Allods Online" has visible references to the described samples, just notice those intersecting vaults, rich decoration, tilework and keel arches indicative for Moscow state period.



Metropolitan's Chamber with covered gallery in Krutiskoye metochion, an oasis of old Moscow architecture right in the middle of the noisy modern city. A real wonder of preservation.



The chamber of the Tver metochion on the Blacksmiths' bridge (Kuznetsky most) in Moscow – a typical example of many chambers (palatas) – whitened, with small semicircular windows with profiled window trim, high gable roof.



The Episcopal Chamber (Chamber of Facets) in Veliky Novgorod Kremlin is a unique sample in Russian architecture created in Western European Gothic style. It is indicated by the Gothic gables, fan traceries, lancet windows and other architectural features typical of the style. It is probable that thanks to this building the Gothic principles spread further in the interiors of Russian stone buildings.



Samples of medieval buildings of Smolensk from the animated movie "Fortress"

As it was mentioned earlier, Apollinary Vasnetsov has done a great job in visualizing (and since then resurrecting for descendants) the life of medieval Moscow. His works give a great material to study and understand the mood of that time. Here are his works concerning old Moscow street views (as the current research is about masonry in general then the stone landmarks have been chosen for this set). Here are presented (from left to right respectively): Vsekhsvyatskiy ("All saints") bridge with a magnificent view of the Kremlin in the XVIIth century, the heralds in the morning Kremlin (notice the paled private houses and the street pavement), the seven-spired corner tower of the White city defense wall, facing the most dangerous direction of the Crimean tatars' raids.



More popular culture samples

Another example shows somewhat unlucky and incorrect implementation of traditional Russian architectural style - a respawn and starting point for Volskaya Industries in "Overwatch" game. Cross-dome structure is not implemented while we see the drums with the domes that in this case seem just to be standing over the main building volume without any reasonable explanation for the distribution of pressure between the masses (architectonics, ordonnance). Their various heights tend to draw an analogy with St.Basil's cathedral. But the latter shows more logics in construction despite its complicated shapes and absence of single facade. The interior of the Overwatch building seems to conflict with its exterior even in stronger sense - strange museum or library-like space, whose vaults do not have connections with the space under the dome. Hence the dome is not constructively viable in this building and just added atop of it. Decorative features of the building are inarticulate and blurred with only a central kokoshnik and pyramid-like pinnacles along the cornice (that are equally characteristic for the Gothic tradition too). The "Russian sense" is realized with gold finish of the onion domes but that is all. If we visually change those domes to spires of Western European cities, we won't feel that Russian sense anymore. Game concepts show more elaborate decoration, but overall sense is nevertheless somewhat more muslim-like than Russian. Along with that the proportions and the combination of shapes on the sketch seem to be very strange and not well researched. Taking into consideration those critical observations here is a post factum proposal given for the comparison. Visually close Assumption cathedral in Helsinki would be a better reference source as it combines both Russian orthodox, Byzantine, Northern and Western European features and would be easier to understand for foreign artists not knowing Russia well. Another solution would be to reject religious building at all to avoid additional questions and explore something from secular architecture like Russian historicism (more modern interpretations of terem and palata (chamber) features). Igumnov house in the center of Moscow would be a good example for such vector of research.



Another sample of a very unusual but fresh reinterpretation and adaptation of a classic Russian style in architecture can be found in a short trailer of the forthcoming (by the time of the creation of the current article) animated movie "Cyberslav". As we see it is drawn heavily on Russian traditional cultural marks and folklore. The motive of the medieval city invasion with burning churches comes in a new form in the world of future. Somehow it resembles partially the world of "Red Alert" but with a more careful attention to the overall interpretation of the environment depiction.



"Red Alert" game series show banal and clichéd view on Russia in which old and new are being combined in a crazy and funny manner. From the artistic point of view, providing Russian feeling by installing onion domes everywhere no matter the function of the building is definitely not the best design decision. But we can close the eyes to it if take into consideration the absurdity and nonsense as the main principles of the game style.

Generally the main game industry samples for this research have been taken from MMORPG "Allods Online" from Mail.ru company (game fraction named Kania). Unfortunately the Russian theme is not elaborated even among Russian game developers that prefer to copy and reproduce well-established classic fantasy visions of the conventional Western European Middle ages. Let us hope that near future will show more examples of the Russian style and this theme won't be exotic anymore even for Russian natives themselves.



Rich and turbulent Russian history has inspired many national artists to portray pictures of the past thus contributing to the folklorist and romantic painting as well as Russian Revival movement in a whole. Yet to be spoken more about in future parts of the Russian theme research, here are some of the names that can be of help to anyone interested in Russian culture or searching references and sources of inspiration for his own creations. As this part of the research was dedicated to stone architecture, here are some corresponding names.

Apollinary Mikhaylovich Vasnetsov, the junior brother of the more famous painter Victor Vasnetsov, specialized in scenes from the medieval history of Moscow. His paintings present a visual picture of life at that time and help to feel the environment greatly.

Mikhail Petrovich Kudryavtsev, a historian of Russian architecture and urban planning, architect, artist, restorer and poet. In his works he covered the issues of symbolism of ancient architecture of temples, homes, household items in the aspect of the spiritual life of Russia. His paintings show though idealized but beautiful and sublime vision of Moscow as a reflection of Heavenly Jerusalem, a city as it should be according to some divine idea.

Fedor Grigoryevich Solntsev was a Russian painter and historian of art. His artwork was a major contribution in recording and preserving medieval Russian culture, which was a common subject of his paintings. He was the main author of the fundamental work Antiquities of the Russian State, for which he made more than 3000 highly detailed drawing of different artifacts (including the record of all the Kremlin's riches) and parts of the buildings. Solntsev was the main decorator of interiors of the Grand Kremlin Palace in Moscow, the painter of the Cathedral of Christ the Savior and other churches in Moscow.

Nothing has amazed me more than the monument of old Russian architecture in Kolomenskoye. I've seen Strasburg cathedral that had been built for centuries. I was standing near the Milano Duomo but haven't found anything except for the decorations stuck to it. And here I've seen a beauty of the whole. Everything trembled inside me. It was a mysterious silence. A harmony of the beauty of finished shapes. I was witnessing some new type of architecture. I've seen a striving skyward and was standing stunned for long.
H.Berlioz

No, neither the Kremlin, nor his dark passages and magnificent palaces are possible to be described. One should see, see and feel everything that they say to the heart and imagination!

M.Y. Lermontov

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