Novgorod Tetralogical Manuscript Illumination:
Two Facing Pages from the Gospel of John.

Marya Kargashina
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Introduction

I have written and illuminated the first two pages from the Gospel of John in Old Church Slavonic, illuminated in the tetralogical style typical of 14th and 15th century Novgorod, Russia, with an evangelist miniature of St John, on hand made paper, using period pigments and inks or analogues. My reconstruction is an attempt to design in this style and create pages appropriate to the mid 15th c.

Illuminated manuscripts in Novgorod

Manuscript production

Many medieval Russian manuscripts were produced by and for clergy, though lay production is known. Novgorod was a center of production, centering around the archbishopric, and then expanding in the 15th century to the monasteries. Types of manuscripts included Gospels, Psalters, Lectionaries, Bibles, books of sermons, commentaries, chronicles, and miscellanies. (Popova 1984, Smirnova) Production in Novgorod was split between the scribe, ornamentist, and miniaturist; miniatures were often produced on separate sheets by icon painters. Monastery records allow us to follow specific scribes and ornamenters careers. (Smirnova)

Styles of ornament known in the 14th-15th c include the Byzantine abstracted floral style (figure 9), the tetralogical style, and the Balkan braided interlace (figure 10). These styles were often seen used together, with the tetralogical style falling out of favor by the end of the 15th century. (Smirnova)

Manuscript use

Manuscripts were made for boyars and princes, for the laity with a budget, and for churches and monasteries. (Smirnova) Novgorod had a higher rate of literacy than initially assumed, as can be seen in the birchbark documents, finds of wax tablets, and the prevalence of graffiti. (Franklin)

Tetralogical illumination.

14th and 15th century Novgorod saw the flowering of a striking and and idiosyncratic style of manuscript illumination which incorporated high contrast zoomorphic knot work formed into a variety of shapes. Gospels, psalters, books of canons and more were decorated in this manner.

This distinctive style was based in Novgorod starting in the 13th c. and is referred to as tetralogical (Smirnova). It is associated with Novgorod and Pskov, but was found commonly
elsewhere, including Rostov, Moscow, and Belozerro throughout the 13th through mid 15th centuries and as an exception later (Vzdornoz, Smirnova).

The main elements are a very flat seeming negative space knotwork, including creatures and people on a blue, green or very occasionally red background. Multiple colored backgrounds, most often blue/green are also are found, but are less typical. (Smirnova)

Backgrounds

Fig. 1. Blue and green backgrounds
Source: Popova and Vzdomnov
Outlines

The outline is usually in red, with additional black penwork inside the knotwork.

Fig. 2. Red Outlining
Source: Popova and Vzdornov
Penwork

This penwork can take the form of dots, circles, scallops, a hatched line or some combination.

Fig. 3. Penwork
Source: Popova and Vzdornov
Highlights

The knotwork is often highlighted with a thin line of yellow ocher or shell gold.

Symmetry is pronounced but not exact, the piece of ornament will be internally balanced, but details will differ from side. This symmetrical balance is usually around a vertical axis only, and confined to the individual pieces of ornament.
This style of ornament is used in a variety of ways and places on the page, including miniature frames, carpet pages, headers and initials.

Frames

Frames in tetralogical ornament are commonly in the form of an abstract church with onion domes, or less commonly a voided rectangular frame composed of knotwork. This format may also be used for a carpet page without a miniature.

Fig. 5. Church shaped miniature frames.
Source: Popova and Vzdornov
Headers

Headers are based on a block format with the ornament breaking out of the rectangle, in most cases. Headers usually have projecting ornaments on the corners and in the top center. Corners may also be extended and pointed. The frame frequently will have a semicircular or ogival cutout on the bottom edge. The ornamental elements may wrap, overlap or penetrate the frame.

Fig. 6. Headers.
Source: Popova and Vzdornov
Fig. 7. Header terminals.
Source: Popova and Vzdornov
Initials

Tetralogical initials are either animate or simply knot work, still unpainted on a blue or green background. Generally pages with tetralogical headers use tetralogical initials, but other header styles may be seen combined with tetralogical initials.

Fig. 8. Tetralogical initials.
Source: Popova and Vzdornov
Miniatures

Miniatures used with tetralogical ornaments are most often evangelist or author portraits, use a full palette, and in contrast with the frame have a more pronounced dimensional sense, with architecture or landscapes common in backgrounds. See figure 5.

Layouts include miniature facing header with initial, header and initial only or carpet page facing initial and header. Both single and double text columns are seen.

A wide variety of examples of this style exist, including the Ivan the Terrible Psalter, the Novgorod Psalter, etc.
Reconstruction choices

Layout

I have chosen a layout for these two pages of a framed evangelist portrait facing a header and initial, with one column of text, similar to the 1495 book of canons (Petrova et al), as can be seen in the many tetralogically framed portraits from Popova, as well as the unfinished gospels from Vzdornov. As miniature and headers might be on different leaves than the remainder of the manuscript, I have chosen to present these as individual pages.

Calligraphy

We very often see the first line of text written larger, in red and or in a ornamental hand. (Vzdornov) Text and line spacing is generous, usually an uncial hand is used (Popova). I have created a hand based on a 15th c example.

Text

I have chosen to illuminate the opening pages of a Gospel of John, as Gospels are a common illuminated manuscript in this place and time. The text is in Old Church Slavonic, the liturgical language of the medieval and current Russian church.
Materials

Paper

By the fifteenth century both paper and parchment were in use for illuminated books in Novgorod. (Petrova et al, Smirnova) Smirnova states that while parchment saw a return to greater use in the last half of the 15th century, paper was ubiquitous as a manuscript support, enough that watermarks are helpful in manuscript dating (Smirnova, Vzdornov). Based on the visible texture of various examples, I have chosen a handmade laid rag paper, though mine is thicker than I would expect the period paper to be. The size of the piece, at approx 8.5” by 11” per page, is consistent with Novgorod manuscripts of similar design.

Ruling and drawing

The lines for the text would have likely been ruled with drypoint, silverpoint or possibly graphite. (De Hamel), The underdrawings would have been graphite or hardpoint. (De Hamel, Alexander)
This can be seen in figure 12; I have used drypoint for lines and graphite for underdrawing. I have used graphite transfer to transfer my sketches to the page. Cennini discusses the use and making of transfer paper or parchment.

Fig.12. Miniature of John showing underdrawing under flaking paint
Source: Smirnova
Fig. 13. Mark and Luke writing and painting in minatures
Source: Smirnova

Pens

A ubiquitous writing implement was the quill, seen in many miniatures and icons. (De Hamel) The evangelists are commonly depicted writing with a quill pen in Russian miniatures, as seen in figure 13. (Smirnova) I have cut my own from a goose feather.

Ink

The ink used in many medieval manuscripts was iron gall ink, made with oak galls and iron. (Thompson, Cennini) I have used iron gall ink made by Master Davide de Rosier Blanc.

Gold

Based on the inconsistency of application, granular quality, and the fineness of lines, I believe the gold highlight lines to be shell gold, not leaf. (De Hamel) I have used a modern gold ink
based on availability and cost. For the gold background of the miniature I have used a burnishable gold gouache instead of leaf for the same reasons of availability and cost.

**Brushes.**

In Western Europe brushes were made with hair. (Cennini) Russian Evangelist portraits also depict brushes in use. Figure 13. (Smirnova)

I have used modern brushes, including one made by hand.

**Pigments**

Popova states that Russian manuscripts of this timeframe generally used tempera, as icons did, but does not state the binder. I have used gum Arabic, based on the prevalence of ultramarine blue in this piece, which Thompson states is best with gum Arabic, and further that medievally was used with either gum Arabic or gum Arabic and glair. I have used gum Arabic throughout to ensure mixability. Paints were made with a muller and stored in shells, as seen in both western illuminations and Russian evangelist miniatures. I used a ground pigment set given to me as a gift, and both powdered and liquid format gum arabic.

Fig. 14  Illuminator with paint in shells
Source: Alexander

Fig. 15 St Mark depicted painting, note the shells in the paint tray.
Source: Smirnova
Fig. 16. Muller and plate, paint in shells.
Source: Marya Kargashina/Jessica Smith-Carlock

Red Outlines
The red outlines of the figures are made with cinnabar or vermillion. (Gormin/Yarosh, Vzdornov) Russian does not easily distinguish between the two words as pigments. I used a gum Arabic preparation of imitation vermillion, due to safety and availability. Western European sources such as Cennini show the use of minium (red lead) and Brazilwood based red lines and inks, but I did not find reference to either of these in Russia. Also, the shade of red used points to either cinnabar or vermillion. See figure 9.

Yellow Ochre
The other possibility besides gold for highlighting is yellow ochre, which is a common pigment both in western panel painting and Russian icons. (Thompson)

Blue
The blue used is lazurite/lapis lazuli/ultramarine. This is the favored blue of the manuscript painter for saturation and color. (Thompson, Cennini, Vzdordov). I have used synthetic french ultramarine based on cost and availability.

Green
Malachite, verdigris, and green earths were all used in medieval manuscript painting. (Thompson, Cennini) I used a green earth.
Purple
Purple pigments were obtained from various sources, including lichen, whelks and turnsole, but many purples in manuscripts are layered from blue and red. (Thompson) I have chosen to use a synthetic purpleish pigment due to availability. (labeled purple earth)

Red ochre
I have used red ochre as my brown, as Thompson states the range of ochres was wide, ranging from yellowish through red to purpleish.

Black
I have used vine black, which Thompson states was an important medieval black, with a prized bluish cast when mixed into a grey.

White
Rather than use lead white, the common medieval white pigment (Thompson) I have used titanium white for toxicity reasons.
Process

As manuscript production in 14th-15thc Novgorod was split between the scribe, ornamentener, and miniaturist, I have broken my process down between those roles.

Scribe

I have written the first few verses of John based both on an extant gospel, see figure, and on a modern Church Slavonic text of the Gospel of John. When in doubt I have followed the extant gospel in spelling and abbreviations. Ruling was done in advance of writing with a ruler and stylus (i used the point of my burnisher). I based my letterforms on several extant manuscripts. see figure I used oak gall ink and a quill pen I cut.

Fig. 17 text written.
Source: Marya Kargashina/Jessica Smith-Carlock
Ornamentor

The header, title, initial and frame are the territory of the ornamentor. I used tetralogical ornaments throughout, with an evangelist frame of mostly geometric elements arranged in a church shape, as seen in figures 5, 18, 19, and A16. I am creating this piece as a synthesis of the style, and not basing it on any one exemplar.

Fig. 18 evangelists in tetralogical frames.
Source: Popova, Vzdornov
Having sketched my initial, header and frame, I used graphite to transfer to my paper. Extant manuscripts show graphite or silver point underdrawing. See figure 12.
Fig. 20. Graphite Transfer in progress
Source: Marya Kargashina/Jessica Smith-Carlock
I then started the title and other outlines in red with vermillion. I recut the quill to produce the required fine lines.

Fig. 21 title written and header and initial transferred.
Source: Marya Kargashina/Jessica Smith-Carlock

Fig. 22 red outlining done.
Source: Marya Kargashina/Jessica Smith-Carlock
Next the blue background was painted and the gold and penwork added.

Fig. 23. Painting in progress, gold, and finally black penwork added, last step at top.
Source: Marya Kargashina/Jessica Smith-Carlock
Miniaturist

Consistent elements in the portrayal of St. John are stylized rocks, often a cave and or his assistant Prochoros, a portion of the sun from the upper left, a bald head, and writing. He is often seated at a desk if he is depicted by himself, and will have a halo. (Smirnova) My miniature has John on his own, writing in front of a cave in the midst of stylized rocks, with the sun above. The drawing was also graphite transferred.

Fig. 24. Miniatures of St. John.
Source: Smirnova
Fig. 25. My sketch of St John.
Source: Marya Kargashina/Jessica Smith-Carlock
Fig. 26. Underdrawing in frame.
Source: Marya Kargashina/Jessica Smith-Carlock

I painted the miniature color by color, finally adding the white and gray highlights. The table and writing stand are detailed in gold ink, rather than shell gold.
Fig. 27 Miniature painting progress, finished in the center.
Source: Marya Kargashina/Jessica Smith-Carlock
Conclusion

Fig. 28. Finished pages.
Source: Marya Kargashina/Jessica Smith-Carlock

I have created a brief section from a gospel in a style rooted in Novgorod, and belonging to the mid 15th century. In attempting this piece without a specific exemplar I have expanded my skills as an artist/illuminator and with period pigments, and gained a better window into the manuscript process.
Appendix: Illustrations

Fig. A1, A2 Miniatures from the Ivan The Terrible Psalter, late 14th c. Novgorod. Parchment, approx 12.5” by 9.5” each.

Fig. A3, A4 Miniatures of Luke and Matthew from a Gospels, 1409 Pskov. Parchment, approx 12.5" by 9.5" each.
Fig. A5. Miniature from the Ohnezskaya Psalter, 1395 Smolensk. Parchment. 19.3cm x 12.7cm.
Fig A6. Miniature from the Homilies of St Gregory, late 14thc Novgorod. Parchment, 28.5cm x15.5cm
Fig. A7 Miniature of Luke from a Gospels, late 14th to early 15th century Moscow. Parchment, 26.3cm x 19.5cm.

Fig. A8 Miniature of St Basil from Sermons of St Basil, late 14th to early 15th century, no location given. Parchment, 22.5cm x13cm.

Miniature of St John Crysostom from a missal, 1400 Novgorod. Parchment 14cm x 10cm.

Fig. A10. Book of Canons, Novgorod. 1407-08, Paper. 14.5cm x 10.5cm.
Figures A11, A12. Novgorod Psalter, Novgorod. 14th c, parchment. 29cm x 21cm. 
Figures A13, A14. Unfinished Gospels, Moscow. 14th-15thc. Parchment, 19cm x 24.7cm
Figure A15. Unfinished Gospels, Moscow. 14th-15thc. Parchment, 19cm x 24.7cm
Figures A16, A17. Gospels, Moscow. 14th-15thc. Parchment, 19.5cm x 26.5cm
Fig. A24. Novgorod, 1452. Paper.
Fig. A27. Novgorod, 1424.
Bibliography


Koscova, Aleksandra Semenovna. Drevnerusskaja živopis' v Sobraniii Ërmitaža: Ikonopis', Knižnaja Miniatura...XIII-nač. XVII Veka = Early Russian Painting in the


