In Depth Study Permission and License

By signing and submitting this agreement, I grant Olds College the non-exclusive license to archive and make accessible my Master Spinner Program In Depth Study in whole or in part in all forms of media now or hereafter known for educational, research, and scientific nonprofit uses during the full term of copyright. I retain all other ownership rights to the copyright including the right to use in future works (such as articles or books) all or part of my work.

I represent that the submission is my original work, and that I have the right to grant rights contained in this license. I also represent that my submission does not, to the best of my knowledge, infringe on anyone's copyright and that I have obtained written permission from the owner(s) of any third party copyrighted matter included in the work.

I understand that my In Depth Study will be placed in the Olds College's library for access to the public. I will understand that I will clearly be identified by name as the author of the submitted work and that Olds College will not make any alteration other than as allowed by this license to my submission.

Signed: Colleen Termont

Date: August 17, 2019
SPINNING THREAD FOR USE IN
UKRAINIAN FOLK EMBROIDERY

by
Coleen Nimetz

This in-depth study is presented as a partial requirement for the
Master Spinner Certificate at Olds College, Olds, Alberta

Coleen Nimetz
202 - 2305 Victoria Avenue
Regina, Saskatchewan
S4P 0S7
SPINNING THREAD FOR USE IN
UKRAINIAN FOLK EMBROIDERY

Dedicated, with gratitude, to prehistoric and historic spinners and embroiderers,
my spinning instructors and mentors, Elaine Gwynne and Jean Sherman,
and my Ukrainian embroidery instructor, Anita Drebot

Copyright 2007
Not to be reproduced without
written permission of author
ABSTRACT

This in-depth study will explore spinning thread for use in Ukrainian folk embroidery.

Included in this study will be historical information on spinning, weaving and dyeing in Ukraine, as well as information on the development of traditional embroidery stitches.

I will spin fibres that were available to prehistoric and historic spinners of Ukraine, namely, flax, wool, and silk. The threads will then be used to execute traditional embroidery stitches to determine suitability for use in Ukrainian folk embroidery.

Although my study of spinning for use in Ukrainian folk embroidery is far from complete, the knowledge garnered through this study will enable me to spin thread that will be suitable to embroider a rushnyk. This is an embroidered towel that is used for ceremonial purposes such as weddings, baptisms, funerals and religious holidays.

Through this study, my sincerest wish is to pay homage to the early spinners and embroiderers who developed this beautiful art form and passed it on to succeeding generations, and to in some small way assist in the preservation of traditional Ukrainian folk embroidery.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>iii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>iv</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>History of Spinning and Weaving in Ukraine</td>
<td>3</td>
</tr>
<tr>
<td>History of Folk Embroidery in Ukraine</td>
<td>6</td>
</tr>
<tr>
<td>Spinning Embroidery Thread</td>
<td>10</td>
</tr>
<tr>
<td>Fibres Used for Embroidery Samples</td>
<td></td>
</tr>
<tr>
<td>Linen</td>
<td>13</td>
</tr>
<tr>
<td>Wool</td>
<td>17</td>
</tr>
<tr>
<td>Silk</td>
<td>21</td>
</tr>
<tr>
<td>Silk Dyeing</td>
<td>26</td>
</tr>
<tr>
<td>Silk Samples with Dye Percentages</td>
<td>28</td>
</tr>
<tr>
<td>Ground Cloth and Needles</td>
<td>29</td>
</tr>
<tr>
<td>Traditional Ukrainian Folk Embroidery Stitches</td>
<td>30</td>
</tr>
<tr>
<td>Zavolikania</td>
<td>32</td>
</tr>
<tr>
<td>Nyzynka</td>
<td>34</td>
</tr>
<tr>
<td>Hlad</td>
<td>37</td>
</tr>
<tr>
<td>Nabyruvannia</td>
<td>39</td>
</tr>
<tr>
<td>Stebnivka</td>
<td>41</td>
</tr>
<tr>
<td>Yavoriv</td>
<td>43</td>
</tr>
<tr>
<td>Ochka</td>
<td>45</td>
</tr>
<tr>
<td>Kosychka</td>
<td>47</td>
</tr>
</tbody>
</table>
## Conclusion

| Conclusion | 51 |
| Bibliography | 54 |

## SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 1</td>
<td>16</td>
</tr>
<tr>
<td>Sample 2</td>
<td>20</td>
</tr>
<tr>
<td>Sample 3</td>
<td>25</td>
</tr>
<tr>
<td>Sample 4</td>
<td>28</td>
</tr>
<tr>
<td>Sample 5</td>
<td>33</td>
</tr>
<tr>
<td>Sample 6</td>
<td>36</td>
</tr>
<tr>
<td>Sample 7</td>
<td>38</td>
</tr>
<tr>
<td>Sample 8</td>
<td>40</td>
</tr>
<tr>
<td>Sample 9</td>
<td>42</td>
</tr>
<tr>
<td>Sample 10</td>
<td>44</td>
</tr>
<tr>
<td>Sample 11</td>
<td>46</td>
</tr>
</tbody>
</table>
INTRODUCTION

While I was enrolled in the Master Spinner's program at Olds College, my sons became involved in Ukrainian dancing. As part of the dance program, costumes, which included embroidered shirts, were required. Initially they were quite basic, but as my sons advanced, more elaborate costumes from the various regions of Ukraine were required.

During the long hours of stitching, I began to feel a connection to the women who had carried on Ukrainian embroidery through the ages. I became curious about how embroidery had evolved and daydreamed about the lives of those early artisans. As a spinner, I wondered about the fibres that were available to them, the techniques they used to spin threads and the dyes they used to colour them. While I may not share the same ethnicity as these women, I do share a love of textiles and the need to beautify my surroundings through the use of colour and textiles.

When it came time to choose a topic for my in-depth study for the Master Spinner’s program, Ukrainian folk embroidery seemed an appropriate topic to study. However, my enthusiasm for embroidery may have blinded me to the challenges this topic would present.

Since I am not Ukrainian and I know very little about the topic, I had to seek instruction in the art of Ukrainian folk embroidery. I found Anita Drebot, a knowledgeable, generous instructor, and a group of fellow embroiderers who meet weekly. To them, I am deeply indebted.
One of the major factors I had not considered when choosing this study was the limited historical information with respect to textiles generally and, more particularly, Ukrainian embroidery. As with many ancient folk arts, the origins of Ukrainian embroidery are deeply shrouded in mystery. Language, as well, proved to be a significant barrier, as much of the written information on this topic is in Ukrainian and, as is the case with many folk arts, much of the history is oral.

Another major obstacle was my own lack of experience as an embroiderer. To my surprise, I discovered that while the costumes I had embroidered were done exclusively with cross-stitch, true Ukrainian embroidery is executed using a variety of stitches. Cross-stitch was not introduced to Ukraine until the beginning of the 19th century. (Kulynych-Stakhurska, 15) The arrival of this new technique of embroidery from China almost eliminated all other methods. It was easy, required little skill and did not require the concentration necessary for the other methods. (Kutsenko, 1)

A number of books have been dedicated to the preservation of traditional Ukrainian folk embroidery stitches, which were gradually being lost to the cross-stitch. These books are invaluable, and I sincerely thank the authors for their dedication to preserving these stitches. Without their books, this study would have been impossible.

As a hand spinner, my study of Ukrainian embroidery must first begin with the spinning of the various fibres into threads, which are then woven into cloth.
HISTORY OF SPINNING AND WEAVING IN UKRAINE

As the second largest country in Europe, Ukraine has a long and rich history. For many centuries, Ukraine was part of ancient Greek circles. Beginning in the 8th century BC, ancient Greeks founded a series of trading posts along the shores of the Black Sea, primarily in the deltas of the following rivers: Dnister, Buh, Dnipro, and the Don. Some of these posts eventually became large cities. The Greek historian Herodotus visited Olbia in the 5th century B.C. He dedicated the entire fourth volume of his works to Ukraine. The Greeks called this area Hyperborea, which means “beyond the north”. (Kulchytska, 15)

Herodotus tells a moving story about two Hyperborean girls who, in the presence of guards, carried wreaths of wheat to the island of the famous temple of Demetra, the mother-earth goddess. This story testifies to two important facts: 1) that the culture of Ukraine was traditional and revolved around farming; and 2) that contact with the ancient Hellenic world was intimate and real. (Kulchytska, 15, 16) One might reasonably surmise that these two civilizations shared many things, including the fine arts of spinning and weaving.

The absence of textiles from burial or settlement sites has made the study of spinning and weaving difficult. Although there is little conclusive evidence of the origins of spinning and weaving in Ukraine, the majority of scholars agree that they existed in pre-Christian times.

Remnants of burned clumps of hemp thread found at the settlement of Polyvanyj Yar are evidence concerning the craft of weaving. Unfortunately, actual
samples of weaving have never been found. However, glimpses are given through the impressions on the bottoms of ceramic pieces. (Fig. 1) These impressions are evidence that the Trypillians (the Ukrainian name given to Neolithic population whose culture once flourished in present-day Ukraine) prepared weaving from hemp and flax. (Kozholianko , 24) These artifacts confirm that Trypillians were involved in spinning and weaving. (Kozholianko , 30)

Ancient people, protecting themselves from unfavourable environmental conditions, prepared their apparel from materials they found at hand. For this reason, they learned to spin thread from nettles, wild hemp and flax into which they wove cloth. They produced under wear from flax and linen and outerwear from wool, skins and other materials. (Kozholianko , 23)

The earliest evidence regarding the existence of spinning and weaving amongst the earliest tribes comes from the territory of the present-day Chernivtsi oblast' (province) during to the Neolithic period (4000 to 3000 BC). During that time, history
reveals that settlers of the Trypillian culture lived in that region. Crafts and trades were well developed and among the first crafts to gain prominence were spinning, weaving, preparation of animal skins, and the manufacture of footwear. (Kozholianko, 23)

In many areas settled by these peoples, particularly in the Bukovyna region, archaeological materials were discovered which support the fact that spinning and weaving techniques were used among the local settlers. This is confirmed through the discovery of earthen handwheels or ‘prjaslytsi’ for wooden spindles. Early examples of ‘prjaslytsi’ were usually oval having a diameter of 4-5 cm and a height of 1.5 to 2 cm. Individual examples displayed pinprick decorations. (Kozholianko, 23-24)

It is important to remember that hand spindles were used exclusively in early spinning and remained the predominant tool until modern times. While the first wheel-driven spindle reached Europe around 500 A.D. and the spinning wheel around the 14th century, these tools were not readily available to most hand spinners.

Spinning was usually carried out by women during the long winter evenings usually by the light of candles or early in the mornings, before or after the normal tasks of the household were conducted. (Kozholianko, 56) It was believed that one must spin only during daylight or by candlelight, because twilight belongs to the unclean time and the devil may cause harm to the spinner.
Raymond Kaindl, the rector of the University of Chernivtsi, recorded this widely known legend:

"During twilight, a young woman was spinning when a lordling - ‘panok’ - came up to her window. He cast her ten spindles and told her that by the time he returns, she must fill them with spun thread, and that if she does not, death awaits her. Fully frightened, the young spinner awakened an older woman who was sleeping on the ‘pich’. On the advice of this older woman, the young woman wrapped several threads on each spindle. When the lordling returned, who in reality was the devil incarnate, the young spinner handed him all the spindles. Realizing that he had been bested, the devil departed amid his angry mutterings. Since that time, the spinners take great care to spin only with the accompaniment of some form of light."

Kozholianko, 56-57)

Girls and women gathered in the evenings with their distaffs for an evening of song and spinning. Together, the work went on more merrily. Larger spindles were used in twisting several threads together. This process of twisting together several threads was called ‘drugannia’. The resulting threads were used for weaving.

(Kozholianko, 57)

**HISTORY OF FOLK EMBROIDERY IN UKRAINE**

Ukrainian dictionaries explain the phrase “to embroider” as follows: to decorate or embellish clothes and cloths for interior and ceremonial use; to create fancywork either on the material or leather by laying stitches with the help of a thread
and needle. (Susak, Stefyuk, 17)

Archeological discoveries indicate that embroidery has existed in Ukraine since prehistoric times. (Kubijovyc, 816) Numerous bone and bronze needles for the purpose of sewing were discovered from the Bronze Age (2000 to 1500 BC). (Kozholianko, 26)

The excavations of Scythian burial mounds confirm that clothes were adorned with decorative embroidery. (Susak, Stefyuk, 22) The Scythians were a nomadic people that lived on the steppes north of the Black Sea from 7th century B.C. to 3rd century A.D. They established strong commercial connections with Greek states on the Black Sea. Grains, livestock, fish, furs and slaves were traded to the Greeks in return for pottery, ceramics, jewelry and gold sculpture. Eventually Scythian artisans began to reproduce these items depicting the Scythian way of life. (Kuzych and Bekhtir, 1). One such item is a pectoral which unquestionably proves the existence of needlework during those times. (Susak, Stefyuk, 22)

Cloth embroidery was first inspired by faith in the power of protective symbols such as the sun, and then later was used for aesthetic purposes. People regarded these symbols as possessing an invisible power that protected them from all evil, and inspired human souls for peace and good. (Kulynych-Stakhurska, 13) Symbolic designs were first incorporated into woven cloth by using either a weaving shuttle or a needle. (Kubijovyc, 816)

A number of these symbols originated in Asia. As a result of migrations, wars and trade, they were transported to neighboring areas. In fact, Ukrainian
embroidery patterns contain many similar design elements found in Persian rugs.

T. Kara-Vasilyeva, an art critic, asserts that embroidery as an art form was developed during the pre-Christian period, when the artistic and stylistic use of needlework was being developed. Signs symbolizing power of nature and cosmogonical idea of the Universe’s hierarchy were born. Images, which were retained in embroidery, were reminiscent of pagan beliefs and displayed a charming symbolism. An embroidered article gained magic power. Embroidery was executed in strictly determined places: round the neck, on the front and on the bottom. (Susak, Stefyuk, 22)

The fact that embroidery had become widespread in Ukraine, is not only evidenced by archeological materials, but also from travelers’ notes. Forehead bands, fillets, collars, belts and mantles embroidered with gold threads on silk, were discovered in burial sites of the 10th and 11th centuries. (Susak, Stefyuk, 22)

Embroideries have been found on drawings and on the oldest pieces of extant cloth. An example of this is the veil from the Church of the Tithes, destroyed in 1240. (Kubijovyc, 816)

Materials used in early Ukrainian embroidery were simple and found locally. Homegrown linen or hemp was finely hand spun and woven into cloth. Woven tightly and evenly, this cloth had a solid rather than gauzy appearance. Bleached by the sun, it became the perfect material upon which to embroider. (Diakiw O’Neill, 13) After the second half of the 17th century, imported cotton, wool, silk and metal threads for embroidery were used. (Susak, Stefyuk, 22)
Originally, embroidery thread was the same linen thread that was used in the actual weaving of the cloth. To be made more durable, it was coated with wax or soot, turning it yellow or gray. (Kozholianko, 65)

Later the art of dyeing threads with plant dyes was discovered. Dyes were prepared from leaves, flowers and bark from various plants, which were picked in the surrounding forests and fields. Red was made from the cochineal beetle or from sandalwood. Black was prepared from walnut husks, the young leaves of the black maple and from the husks of sunflower seeds. Onion skins and buckwheat husks were used to obtain yellow, and orange came from apple and oak bark. The homespun floss was soaked in dyes for as long as a week and then hung out to dry. The resulting tones were earthy and fortunately durable. (Kutsenko, 10)

The variety of colours for fabrics depended, for the most part, upon the characteristics of local plants. Over time, local individuality in colouring and design of fabrics developed which did not lose their significance even when fabricated dyes were spread throughout the area. (Kozholianko, 65)

The 10th to the 16th centuries were a historical period during which the unique traditions of decorative art from Ukraine were developed. Ceremonial and items for everyday use were decorated with embroidery. According to the researcher, L.T. Kravchuk, none of the artifacts of Ukrainian folk embroidery during this period were preserved. However, we learn about patterns of folk cloths and embroidery from church paintings (icons) which revealed that shirt fronts, cuffs and headdresses were decorated with embroidery. This indicates that embroidery had become widespread during those times. The oldest known artifact of folk embroidery is a fragment of a towel from 1673.
By the end of the 17th century, the baroque style dominated embroidery. This style originated in Europe, and combined with the tendency towards heightened decoration and subject vividness, it developed into a strongly pronounced national style.

In the 19th century, progressive public figures paid particular attention to the high artistic value of national Ukrainian embroidery works. Every region in Ukraine had created its own distinctive ornamental motifs, compositions, color scheme and specific embroidery techniques. This demonstrated awareness and reflection of the social environment by the craftswomen.

During the 20th century, fancywork had become one of the most widespread forms of decorative art. Cooperative workshops of embroidery were organized in well-known centres of folk art. During the famine of 1932-1933, through collectivization of farms, and the decay of living standard in post-war years, there was a significant decline of this art in Ukraine. Since the late 1940's, however embroidery has again been revived and maintained through the common creative efforts of both folk and professional artisans. In the 1960's small cartels were reorganized into state businesses by various government ministries.

SPINNING EMBROIDERY THREAD

With the exception of a small embroidery project which I completed as part of the Level V requirements, all of my Ukrainian embroidery has been executed using
commercial embroidery floss consisting of six strands of two-ply thread. These strands are separated according to the stitch to be executed and the count (threads per inch) of the ground cloth.

Prior to this study, I attended a workshop on spinning silk for embroidery taught by Jane Fornier. I gained invaluable experience, but more importantly, I learned to relax and have fun while spinning silk thread.

I then turned to written information to glean tips from authors who have experience in spinning fibres for embroidery.

Initially, I read the article *Spinning Silk Threads for Embroidery* written by my spinning instructor and mentor Jean Sherman (Spin-Off Summer 1994.) In her article, Ms. Sherman indicates that one needs soft hands, patience in treadling to obtain enough twists per inch, and a love of spinning silk. She suggests that one use hand cream regularly to avoid snagging the silk. Ms. Sherman used cultivated or tussah silk in top, sliver and brick form. Pulling off a section 12 inches in length, she then split it lengthwise into strips approximately ½ inch wide, and then gently teased each of these strips sideways. This opened up compacted areas and made the fibre easier to draft. She suggests loosening the take-up tension on your wheel to allow just enough tension to draw the spun thread onto the bobbin. Ms. Sherman used a worsted draw to spin.

Cheryl Kolander, author of *A Silk Worker’s Notebook*, believes that a soft loosely twisted floss, either single or two-ply, displays silk’s luster, forms a flat surface and spreads well. This is especially significant in large areas of the satin (hlad) stitch. She also indicates that a very fine silk thread of a contrasting colour may be used to
outline pattern stitches. (Kolander, 66, 67) Sample 7 on page 38 is a good example of this, where hlad stitch is outlined with a black thread.

Another article I read was *Silk Embroidery Threads - Spinning Small Amounts of Luxury* by Carol Huebscher Rhoades, (Spin-Off Spring 2004). Ms. Huebscher Rhoades gives very practical advice to spin silk in a well-lit space and to place a contrasting coloured cloth on one’s lap, enabling one to view the drafting zone more readily. She also describes a technique of preparing roving by dividing it lengthwise into manageable segments, “popping” the fibre open by holding the top or roving between your hands, which are extended slightly longer than the fibre length, and then pulling apart quickly. She divides the strands into very thin lengths, proportionate to the yarn size desired. She also suggests using a high-ratio whorl, a lighter drive band, and lowering the tension until it is sufficient to keep the yarn feeding onto the bobbin.

I would also add, from my own experience, that it is absolutely imperative that one’s wheel be in optimum running condition before one is able to spin the smooth, even threads required for embroidery. I, therefore, began by thoroughly cleaning, oiling and tuning my wheel before spinning each of the fibres.
FIBRES USED IN EMBROIDERY SAMPLES

In executing the samples contained in this study, I felt it only appropriate to use fibres that would have been available to the early artisans. These fibres include linen, wool and silk.

LINEN:

Linen fibre obtained from the stem of the flax plant was probably the first textile fibre used by mankind. The earliest known record of its use is as fish nets by neolithic lake dwellers from the Stone Age approximately ten thousand years ago. (Potter and Corbman, 158.) As previously mentioned, flax was readily available in Ukraine and was likely the first fibre used for spinning, weaving, and eventually embroidery.

Characteristics of linen are:
- strong (second only in strength to silk)
- 20% stronger when wet
- high lustre
- highly absorbent and dries quickly
- good conductor of heat, thus feels cool to the touch
- little affected by alkali
- attacked by acid
- attacked by mildew if damp
- nonelastic
- launders well and gives up stains readily
- softness is enhanced with repeated washings
- little shrinkage
- fair affinity to dye
- good abrasion resistance

(Potter, Corbman, 30-31)

In spinning the linen used in this study, the obvious choice was to use line flax from a strick. Its long, smooth threads are best suited to withstand the abrasion inherent in repeatedly pulling the thread through the ground cloth.

I carefully dressed a distaff utilizing the method taught by Elaine Gwynne in Level IV. With slightly moistened fingers, I drew fibres down from the distaff with my left hand, while using the right hand to smooth the fibres away from the orifice towards the distaff. This method resulted in a relatively even, smooth yarn.

From my previous experience with using linen, I had learned that the action of pulling the thread repeatedly through the ground cloth had caused the thread to shred and bunch, making it quite difficult to pull through the cloth. To combat this problem, I waxed the thread with bee's wax, which allowed it to slide more smoothly through the holes of the ground cloth.
SPINNER’S RECORD

Title: Sample 1

Fibre: Line Flax

Form of Fibre: Strick

Preparation: Dressed on distaff

Spinning Technique: Spun ssZ, with moistened finger tips, drawing fibres down from the distaff with the left hand, while using the right hand to smooth the fibres away from the orifice towards the distaff.

Wheel: Schacht Double Treadle

Ratio: 15.5:1

Twist Per Inch: 7-8

Ply: 2 ply

Yards Per Pound: 5,543 or 18.5 lea

Finishing: The linen was wrapped onto pvc pipe (with holes drilled in) and boiled for 1 hour in water with a solution of Orvis and washing soda (3% wog).

Dyeing: The linen was then dyed with Procion MX dyes with strict adherence to the dye recipe for fibre-reactive dye on cellulose fibre found on page 38 of Hands on Dyeing. The percentage of 1% dye stock solution is noted below.

Sample 1c Sky Blue 515 (2%)

Sample 1d Yellow 100 (2%); Red 310 (2%)
SAMPLE 1a
Line Flax (Strick)

SAMPLE 1b
FIBRE: Line Flax (Strick)
TWIST: ssZ
TPI: 7-8
COUNT: 5543 ypp/18.5 lea

Sample 1c: Sky Blue 515 2%
Sample 1d: Yellow 100 2%; Red 310 2%
WOOL:

In the article, *Bronze Age Textiles of the Caspian Sea Maritime Steppes*, the authors express the view that wool would have been used in textiles later than linen and that its use as a major textile material began during the Middle Bronze Age. (Shishlina, Golikov, Orfinskaya, 110)

Characteristics of wool are:

- highly absorbent (15-50 percent of its weight) with the ability to generate heat while wet
- good insulator
- elastic
- resistant to acids
- vulnerable to sunlight
- subject to moth and insect damage
- good affinity to dye

(Potter, Corbman, 30-31)

I chose a Lincoln fleece because of its long staple length, luster, and affinity to dye. The individual locks of this Lincoln fleece were scoured thoroughly, then hackled to remove short fibres. The wool was then lightly sprayed with an emulsion of diluted baby oil. The locks were then combed using five pitch English wool combs and drawn
through a diz into sliver. At each step of the fibre preparation, care was taken to ensure that the direction of the cut and tip ends was preserved.

The sliver was spun in a worsted manner using a short draw spinning technique. The singles were reversed on the bobbin so that plying would begin with the cut end.
Title: Sample 2

Fibres: Lincoln fleece

Form of Fibre: Unwashed fleece

Source: Fleece provided as part of materials for Level V

Preparation: The individual locks of this Lincoln fleece were scoured thoroughly, then hackled to remove short fibres. The fibre was then lightly sprayed with an emulsion of diluted baby oil. The locks were then combed using five pitch English wool combs. The fibre was drawn through a diz into sliver. At every step of the fibre preparation, care was taken to ensure that the direction of the cut and tip ends was maintained.

Spinning Technique: The sliver was spun zzS in a worsted manner using a short draw spinning technique. The singles were reversed on the bobbin so that plying would begin with the cut end.

Wheel: Schacht Double Drive

Ratio: 15.5:1

Twist Per Inch: 7 to 7.5

Ply: zzS

Yards Spun: 225

Yards Per Pound: 6,236.8 or 11.13 hanks

Finishing: Spun yarn was washed with very hot water and Orvis, then dried under slight tension.

Dyeing: The wool was then dyed with Procion MX dyes with strict adherence to the dye recipe for fibre-reactive dye on protein fibre found on page 39 of Hands on Dyeing. The percentage of 1% dye stock solution is noted below.

Sample 2d  Sky Blue 504 (4%)

Sample 2e  Black 708 (12%)
SAMPLE 2c
FIBRE: Lincoln Fleece
TWIST: zzS
TPI: 7-7.5
COUNT: 6236.8 ypp/11.13 hanks
SILK:

While linen and wool were readily available and undoubtedly the first fibres used for embroidery in Ukraine, it is reasonable to speculate that, due to Ukraine’s geographic location, silk was also available in prehistoric times.

The native Chinese silkworm was introduced into Ukraine in the 18th century, and thereafter a sericulture industry slowly developed. Since 1991 silkworms have been bred in 18 oblasts of Ukraine on over 2,700 state farms. (Kubijovyc, 711)

Characteristics of silk:

- strongest of natural fibres
- light in weight
- lustrous
- elastic
- good drapability
- crease resistant
- heat conductivity
- colourfast, but resistance to light is unsatisfactory
- does not attract dirt and readily gives it up when washed or dry-cleaned
- resistant to mildew
damaged by perspiration

excellent affinity to dyes

(Potter, Corbman, 30-31)

I made the decision to spin cultivated silk for two reasons: firstly, it is generally finer than tussah silk; and, secondly, I wanted bright, clear colours when the thread was dyed. I believed this would be more readily obtained using white cultivated silk, rather than honey-coloured tussah.

I applied a small amount of salt and oil on my hands and vigorously rubbed the mixture. This left them smooth, soft and ready to work with the silk fibre. Lastly, I applied a small amount of baby powder to keep my hands free of moisture.

I began by taking a piece of roving approximately 10 inches in length, and dividing it into 1/4 inch strands. Each strand was then attenuated, with my hands held apart slightly further than the staple length. This loosened the fibres slightly and allowed for more even drafting. I prepared my Schacht wheel as usual and then changed the whorl to the highest speed, which was 19.5:1. Using my wheel in scotch tension mode, with the tension set to a very gentle take up, I began to spin. I treadled slowly and evenly, paying particular attention to the amount of fibre in the drafting zone. Ukrainian
embroidery requires smooth, even threads and the only way to achieve this is to maintain a consistent amount of fibre in the drafting zone.

My objective was to spin a two-ply yarn which would be slightly larger than the cotton thread of the even weave cloth that I would be using as the ground cloth for my embroidery. After experimenting, I settled on a grist and TPI I felt would work well in the embroidery and set about spinning.
Title: Sample 3

Fibres: Bombyx Silk  
Form of Fibre: Omei Brand “A.1.” Sliver

Source: Robin & Rus Handweavers  
Cost: 8 oz/$20 USD

McMinnville, OR

Preparation: I divided a 10 inch length of sliver into lengths approximately 1/4 inch in diameter. Each sliver was then attenuated, with my hands held apart slightly further than the staple length. This loosened the fibres from their compressed state and improved drafting.

Spinning Technique: Using my Schacht wheel in scotch tension mode, the highest ratio, and very gentle tension, I began to spin. I treadled slowly and evenly, paying particular attention to the amount of fibre in the drafting zone.

Wheel: Schacht Double Treadle  
Ratio: 19.5:1

Twist Per Inch: 8-12  
Ply: 2 ply

Yards Spun: 325  
Yards Per Pound: 10,735 or Count 12.8 denier

Finishing: Washed with Orvis and dried under light tension.
SAMPLE 3a
Cultivated Silk Fibre

SAMPLE 3b
FIBER: Cultivated Silk
TWIST: zzS
TPI: 8 - 12
COUNT: 10,735 yards per pound
or 12.8 denier
SILK DYEING

To obtain the colour range for the embroidery, I used three different types of dyes: pre-metallized (Lanaset), weak acid (Mother McKenzie) and Gaywool.

Pre-Metallized (Lanaset)

With strict adherence to the dye recipe for pre-metallized dye found on page 41 of *Hands on Dyeing*, I dyed silk skeins with the following colours: Red 601341, Yellow 601340, Royal Blue 600010, Black 601088.

(The percentage of 1% dye stock solution is noted adjacent to each colour on page 28)

Weak Acid (Mother McKenzie)

By far the most challenging colour to obtain was black, which is one of the most important colours in Ukrainian embroidery. After several unsuccessful results with various weak acid dyes, I was able to achieve the desired depth of colour using Mother McKenzie black following the dye recipe found on page 40 of *Hands on Dyeing*.

(The percentage of 1% dye stock solution is noted next to colour on page 28)

Gaywool

Samples 7 and 11 were dyed using Gaywool dyes following the manufacturer’s recommended method. It should be noted that Gaywool dyes contain
mordant and debath acidifier and require no additional chemicals. I chose to use Gaywool dye in order to obtain particular shades of red and green.

As suggested in the manufacturer’s instructions, I used the cap to measure the amount of dye I thought would be appropriate. While the colours achieved were perfect for my embroidery, because of the lack of precision in measuring the dye I do not believe I would be able to reproduce the exact colour again. As a result, I would not recommend this dye for dyeing embroidery thread.
SILK SAMPLES WITH DYE PERCENTAGES

Sample 4a  Mother McKenzie Black 12%
Sample 4b  601340 Yellow 3.5%; 601341 Red .5%
Sample 4c  601340 Yellow 3%; 601341 Red 1%
Sample 4d  601340 Yellow 2%; 601341 Red 2%
Sample 4e  601340 Yellow 1%; 601341 Red 5%
Sample 4f  601341 Red 4%
Sample 4g  Gaywool Tomato Red ½ capful
Sample 4h  601341 Red 3%; 600010 Royal Blue 1%
Sample 4i  601341 Red 3%; 600010 Royal Blue 1%; .5% 601088 Black
Sample 4j  601340 Yellow 2.5%; 600010 Royal Blue 1.5%
Sample 4k  Gaywool Lucerne Green ½ capful
Sample 4l  600010 Royal Blue 1%
Sample 4m  600010 Royal Blue 2%
GROUND CLOTH AND NEEDLES

Traditionally, Ukrainian embroidery is worked on ground cloth that has well-spaced warp and weft threads that are of equal thickness and are coarse enough to be counted. The fabric should also be firm enough to maintain the shape of the stitches. Ukrainian designs are generally embroidered on a light coloured background such as white, cream or natural. (Ruryk, 19)

One of my fellow students, who had recently visited Ukraine, provided me with cloth woven in Ukraine specifically for embroidering rushnyky. The cloth is made of 100 percent cotton, woven in an even weave with a thread count of 28 threads per inch. I have used this cloth to embroider all the samples in this study, and it will also form the structure of the rushynk that I will embroider.

The needle for counted thread embroidery should be straight, smooth and shorter than a sewing needle. It should have a rounded, well-polish eye large enough to allow the thread to pass through it easily. The point should be blunt so as to allow it to pass easily between the threads of the ground cloth without splitting them. (Ruryk, 19)

In early times, needles used in embroidery were carefully selected, kept hidden and never loaned or used for any other purpose. Superstition dictated that they should be purchased on a Monday, a day of the moon, the celestial body associated with the female gender. (Prokopovych, 1)
Ukraine may be divided into three distinct regions in terms of embroidery ornamentation: (1) the country's inaccessible areas, such as Polisia in the north and the Hutsul region in the Carpathian Mountains, where a strict geometric pattern has been
preserved; (2) central and eastern Ukraine, from the Buh River along the Dnieper River to the Black Sea, where floral designs predominate; and (3) the remaining areas which include Volhynia, central Galicia, the Boiko and Poltava regions where floral motifs, when they occur, are strongly geometric. (Kubijovyc, 816)

Traditional Ukrainian embroideries can be recognized by the following characteristics: their symmetrical lines due to working on counted threads of the ground cloth; complete covering of the ground cloth with embroidery stitches; use of a variety of stitches, as well as a balance in colour and design. There are over 200 known stitches, which may be divided into 20 technique groups. (Ruryk, 19)

The samples included in this study are but a few of these stitches.
Zavolikania

The most ancient of all stitches are those in which the needle imitates the shuttle. *Zavolikania*, also known as *zavoleekannia* and *perevolikania*, is believed to be the oldest known stitch design and is used primarily in the following regions: northern Kiev, Polissia, Chernihiv and Volyn.

*Zavolikania* designs are worked using the running stitch, and are worked from right to left along one weft thread of the ground cloth. The needle carries the embroidery thread forward weaving it over and under the warp threads the entire width of the cloth. Once one row of stitching is complete, the stitches on the return trip are worked left to right identically, except one thread lower. The third row going from right to left creates a new design, and the fourth row is identical to the previous row. The pattern is thus worked in pairs of rows. The result is a completely geometric pattern.

Traditionally *zavolikania* is done in red with the addition of black, blue or white narrow double lines in the centre and the edges of the design.

(Sample 5 on page 33 is an example of *zavolikania*)

![Zavolikania Diagram](image-url)

*Fig. 5 (Ukrainian Embroidery Techniques Fig. 6, Tania Diakiw O’Neill)*
**Nyzynka**

*Nyzynka*, also known as *nyz* or *zanyzuvannia*, as with *zavolikania*, is executed using a running stitch which also imitates the shuttle. There are, however, several significant differences. *Nyzynka* patterns are worked vertically rather than horizontally, thus the thread runs along the warp thread and goes over and under the weft threads. In *nyz*, the needle works first away, then back towards you on the next line with no turning of the cloth. (Fig. 6) The count is based on odd numbers, in other words the embroidery thread covers an odd number of ground threads on the obverse of the embroidery. (Diakiw O’Neill, 25-26)

The second major difference is that the pattern is worked from the reverse side of the material. In Ukrainian, the word *nyz* means bottom, and *nyzynka* derives its name from the unique way it is worked, i.e. from the bottom. Another major difference is that the rows are not repeated, which allows more opportunity to vary the motif.

![Fig. 6](Ukrainian Embroidery Techniques Figs. 8.1, 8.2, 8.4, Tania Diakiw O’Neill)
*Nyzynka* designs are usually composed in three distinct parts: the main centre part with an edging on either side. (Fig. 6) It is worked in black or red, then the exposed fields inside the basic nyzyna pattern are filled in with other colours using other types of stitches such as hlad. A braid (*kiska*) stitch or plaiting (*pletinka*) is worked between the centre and edging stitches. (Kulynych-Stakhurska, 23)

Ms. Diakiw O’Neill expresses the view that this style of embroidery, while deceptively simple, is often difficult for those who have not learned it early in life. (Diakiw O’Neill, 25)

*Nyzynka* is primarily used for women’s shirt insets and occasionally for the entire sleeve. It is also combined with designs done in other techniques. (Kulynych-Stakhurska, 23)

(Sample 6 on page 36 is an example of *nyzynka*)
SAMPLE 6

Fibre: Silk
Stitch: Nyzynka, Hlad, Kosychka
Several techniques of *hlad* (Poltava flat stitch or satin stitch) are used in folk embroidery. (Kulynych-Stakhurska, 26)

Originally *hlad* was embroidered using either white or unbleached linen threads on white cloth. Embroiderers in Poltava region eventually began using coloured threads such as grays or pale browns, while in the Kiev and Chernihiv regions they added red and black. Eventually *hlad* was stitched using the full spectrum of colors. Seldom is a design done exclusively in satin stitch, as it is usually used in combination with other stitches. (Diakiw O’Neill, 34)

*Hlad* is worked from left to right and the stitches are laid both vertically and horizontally between the threads of the material. It is worked loosely, with the stitches close together so that the ground cloth itself is not seen from beneath the embroidery. The result is a delicate shading of the design by the rows worked in vertical and horizontal stitches. (Ruryk, 32)

The Sample 7 on page 38 is an example of diagonal hlad, which is generally widespread in the Kiev, Cherkask, Chernihiv regions. It is done, for the most part, in red and black and is often outlined with a black or contrasting coloured thread. It is used in geometrical designs, most commonly rosettes (stars).

![Image](13.3)
SAMPLE 7

Fibre: Silk
Stitch: Hlad, Stebnivka,
**Nabyruvannia**

The *nabyruvannia* design is found in the Kiev and Chernihiv regions and is primarily used for embroidering men’s shirts. The colours used depend on the region, however are commonly red, black, green and yellow. This stitch is executed by placing stitches on the diagonal resulting in an exclusively geometric structure. (Kulynych-Stakhurska, 48)

![Fig. 8](Ukrainian Embroidery Techniques Fig 16.1 and 16.3, Tania Diakw O’Neill)

(Sample 8 on page 40 is an example of *nabyruvannia*.)
SAMPLE 8

Fibre: Silk
Stitch: Nabyruvannia, Zavolikania
**Stebnivka**

The double running stitch or *stebnivka* is used in several ways in Ukrainian embroideries. Complete designs may be embroidered using this stitch. Most often, however, it is used in lines, outlines and bounding rows in flat stitch designs. This stitch is worked in two journeys where the spaces that were left uncovered by the first stitches are covered on a second journey. (Ruryk, 28)

There are many pattern variations using the double-running stitch. Besides outlining colourful designs, the double running stitch is used to create additional patterns which, depending on their form, have names such as curls, ducks, drakes, etc. (Diakiw O’Neill, 20)

![3 ⋊ 1']

Fig. 9 (Ukrainian Embroidery Techniques, Fig. 3.1, Tanya Diakiw O’Neill)

(Sample 9 on page 42 is an example of an example of *stebnivka.*)
SAMPLE 9

Fibre: Linen
Stitch: Stebnivka, Konychka
**Yavoriv**

The basic technique of *yavoriv* is to stitch rows of diagonal satin stitch (also known as *slav* stitch) closely together on the fabric. These rows may also be referred to as *shnurok*.

Each row is done in a single colour. The next row is often of another colour, and its stitches may lie in the opposite direction. (Diakiw O’Neill, 40). The stitches can be vertical, horizontal, alternating and of differing lengths and angles. Varied colour combinations are skillfully combined to dazzle the eye. (Kmit, Luciow, Luciow, 25).

(Sample 10 on page 44 is an example of the yavoriv stitch.)
*Ochka* (eyelets, nightingale eyes, *vizda*)

Ochka are formed by working a thread symmetrically around a centre hole in the fabric. The needle works so that it always enters at the centre of the eyelet and exits at the periphery. Each stitch is pulled firmly to produce the small eye (*ochko*). (Kmit, Luciow, Luciow, 28)

The eyelet may be outlined with a contrasting or complementary thread using *stebnivka*.

![Fig. 10](Fig. 2-32, 33, 34 Ukrainian Embroidery, Kmit, Luciow, Luciow)

(Sample 11 on page 46 contains the ochka stitch)
SAMPLE 11

Fibre: Silk
Stitch: Hlad, Ochka, Stebníška
Kosychka

The Kosychka stitch may be worked either over two and four threads or over three and six threads. The stitches are used to fill in borders and are worked from left to right on the fabric. (Kmit Luciow, Luciow, 22)

This braid stitch is embroidered along the edges of nyz. This stitching tends to stand up on the cloth and should not be pulled down too tightly. Braids are stitched between the main nyz design and the edging at the top and bottom.

Fig. 11 (Ukrainian Embroidery Techniques Fig. 33.2, 33.3, 33.4, 33.5, Tania Diakiw O’Neill)

(Sample 6 on page 36 and sample 9 on page 42 contain the kosychka stitch)
One of the oldest Ukrainian traditions is the embroidering of a ritual towel known as a rushnyk. Rushnyky are generally three to four meters long and 40 to 50 centimeters wide. They were woven using the finest linen thread, and may have been decorated with weaving or embroidery.

In pre-Christian times, rushnyky were used during religious ceremonies in the woods where they hung as decorations on branches. They were considered sacred objects and talismans that protected their owner by warding off evil spirits. The rushnyk was a vital part of everyday life in the annual calendar cycle. The symbols, lines, and colors were associated with the invisible world and with the spirits that belonged to the four elements – Fire, Earth, Air and Water. (Prokopvych, 1)

Fig. 11 Example of Rushnyk

It was believed that rushnyk had magical powers and were used in a variety of situations. A mother who was sending her son off to war would embroider all her prayers for his safe return in the towel she gave him for his journey. An illness or other
problem with a family member resulted in towels being woven and embroidered in one night to cure the illness or solve the problem. (Prokopvych, 1)

Two rules of the old traditions underscore the mysticism of ritual embroidery. The first required that mistakes should never be ripped out, for this could confuse the energy field of the towel and bring destruction. The second held that both sides, visible and invisible, should be in full harmony as the visible side reflects our public actions and the invisible reflects our thoughts and desires. (Prokopvych, 2)

It was believed that spinning the threads and weaving the linen used for the rushnyk contributed to its spiritual powers. As Ukrainians make the sign of the cross holding three fingers together, so too are the threads twisted together using the same three fingers. This imbues them with all the human energy that becomes part of the material as the threads are woven into a living cloth of life. (Prokopvych, 2)

After Christianity came to Ukraine in 988 AD, the rushnyk gradually became less important, however was still regarded as sacred and was adapted to the Christian tradition. Cloths began to accompany Christian devotional items and today they are used to decorate icons and crosses. (Prokopvych, 1)

The rushnyk played a prominent role in wedding rituals. It was the bride’s chief gift to the bridegroom and her in-laws. The bridal couple would stand on a rushnyk when taking their marriage vows, and their hands were frequently tied together with a rushnyk. At the wedding the wedding bread was placed on a rushnyk. A newborn was placed immediately on a rushnyk. At funerals, a rushnyk covered the lid of the coffin, the oxen pulling the hearse were decorated with it, and the coffin was lowered into the grave.
with a rushnyk. (Kubijovyc, 441)

While most of the symbolism and magic surrounding their meaning has been lost over time, sufficient information has been passed down such that people still utilize rushnyky today for various religious ceremonies and passage of life rituals such as birth, marriage and death.
CONCLUSION:

In this study, I have gained knowledge of the history of spinning, weaving and dyeing in Ukraine, as well as some of the traditional Ukrainian embroidery stitches. I learned that I belong to a long succession of women who have beautified their clothing and homes through the use of embroidery.

In my research I found that linen, hemp and wool were the first fibres to be used in weaving, and eventually in embroidery. As part of my research I spun linen, wool and silk into thread, which was then used in Ukrainian embroidery. This has helped me understand these fibres and how they were used in traditional Ukrainian folk embroidery.

The linen that I spun and used in a small embroidery project as part of the Level V requirements did not have sufficient twist and I found that some of the threads had a tendency to shred as they were pulled repeatedly through the ground cloth. I therefore inserted additional twist in the thread spun for this study. I took care to spin a smooth, firmly twisted yarn. The additional twist that I inserted did in fact result in a thread that better withstood the stress of repeatedly going through the ground cloth. From Sample 1b on page 16, you will see that the thread is still somewhat “hairy”. I do not believe that this detracts from the embroidery stitches displayed in Sample 9 on page 42. I feel that the embroidery executed with linen thread is acceptable, and that the resulting example is aesthetically pleasing.

Spinning wool and using it in embroidery was also successful as evidenced in Sample 5. While the inherent characteristics of wool also result in a bit of “hairiness”
in the yarn, again I do not feel that this detracts from the embroidery. I found that I
inserted adequate twist in the yarn, and that it worked well as an embroidery thread.

While I was pleased with both the linen and wool threads, I believe the best
results were obtained using silk. Its inherent smooth, silky character, along with its
exceptional lustre, made it the ideal thread for embroidery. The threads easily slid
through the ground cloth and were little affected by the abrasion of repeatedly being
pulled through the ground cloth. The stitches themselves have beautiful definition, as
evidenced in samples 6, 7, 8, 10 and 11.

I was very pleased with the results of dyeing linen with the Procion MX
dye and dyeing wool with weak acid and Procion MX.

Having used three different dyes (weak acid, pre-metalized and Gaywool)
for the silk, I feel the best results were achieved with the pre-metalized dyes. While these
dyes require a bit more time and attention, the results were well worth the effort. The
pre-metalized dyes left the silk with beautiful hand and luster.
I also found the clear, bright colours were very fast, which is of the utmost importance in
embroidery. One thread that is not colour fast could have disastrous consequences in a
piece of embroidery.

In summary, I found that linen, wool and silk are indeed well-suited for use
in Ukrainian folk embroidery. Having completed this study, it is now my intention to use
the information garnered to use my hand-spun, hand-dyed threads to embroider a rushnyk
to be used during our family celebrations.
I would encourage the reader to spin their own threads to use in an embroidery project. While producing the fine, smooth yarns requires patience, the results are well worth the effort. Having total control over the creative process from choosing the fibre, analyzing the grist and TPI required, spinning and dying the threads, and finally executing the embroidery, is very empowering as an artisan.
BIBLIOGRAPHY

Bilash, Rodomir and Wilberg, Barbara, *Tkanyna: An Exhibit of Ukrainian Weaving*, Canadian Institute of Ukrainian Studies and Friends of the Ukrainian Village Society Edmonton, 1988


Kulynych-Stakhurska, Olena, *The Art of Ukrainian Embroidery Techniques and Technology*, (Publishing information in Ukrainian), 1996

Kutsenko, Maria, *Ukrainian Embroideries*, Spectrum Publications Pty Ltd., Richmond, First published in Australia, 1977


Shishlina, Natalia I., Golikov, Valery P. and Orfinskaya, Olga V., article, *Bronze Age Textiles of the Caspian Sea Maritime Steppes*


_Ukrainian Embroidery Designs and Stitches_, Ukrainian Women’s Association of Canada, compiled and edit by Nancy R. Ruryk, Trident Press Ltd., Winnipeg, Manitoba, 1982

**ADDITIONAL READING**


55