Open Journal of Social Sciences, 2014, 2, 19-29
Published Online October 2014 in SciRes. http://www.scirp.org/journal/jss
http://dx.doi.org/10.4236/jss.2014.210004

Comparable Analysis of Folk Home Textile of East Prussia in Territories of Lithuania and Poland

Eglė Kumpikaitė[1*], Liucina Kot[1], Erika Nenartavičiūtė[2]

[1]Department of Materials Engineering, Faculty of Mechanical Engineering and Design, Kaunas University of Technology, Kaunas, Lithuania
[2]Lithuanian Open Air Museum, Kaišiadorys, Lithuania
Email: [*]egle.kumpikaite@ktu.lt

Received 12 August 2014; revised 30 September 2014; accepted 14 October 2014

Abstract

Region of East Prussia is investigated very low in Lithuania and in Poland. The aim of this investigation is to make complex analysis and to compare folk home textile of East Prussia weaved in territories of Lithuania and Poland presenting technological recommendations for reconstructions manufacturing. In this work there were investigated 56 folk home textile pieces (27 bedspreads and 29 tablecloths) from 5 Lithuanian museums and 2 Polish museums. Number of pieces, patterns, weaves, colours, number of heald shafts etc. and their chronological tendencies were established during investigation. According to the separated samples of home textile from East Prussia region, the reconstructions of home textile fabrics were designed and weaved: 24 units (123.77 m), 12 units of them—with industrial weaving loom, 12 units—with hand weaving loom.

Keywords

Folk Home Textile, East Prussia Region, Weave, Number of Heald Shafts, Reconstructions

1. Introduction

In Lithuania both ethnologists and technologists have analysed folk fabrics. Ethnologists have investigated the patterns of traditional textile as a cultural element, which characterise various sociocultural symbolic points tied to national consciousness, lifestyle and traditions. Textile technologists have investigated the laws of ornamentation structure, as well as created software programs for pattern analysis, preservation and development.

[*]Corresponding author.

How to cite this paper: Kumpikaitė, E., Kot, L. and Nenartavičiūtė, E. (2014) Comparable Analysis of Folk Home Textile of East Prussia in Territories of Lithuania and Poland. *Open Journal of Social Sciences*, **2**, 19-29.
http://dx.doi.org/10.4236/jss.2014.210004

Pick-up, and overshot folk fabrics were studied by Lithuanian technologists Kazlauskienė, Neverauskienė and Milašius [1]. Referring to the method suggested by Woods and developed by Hann, they also presented their own system of classification, which was applied to woven ornaments and based on various groups of symmetry and operations with matrices. Katunskis, Milašius and Taylor [2] also designed software to create a basis for a database, which was adjusted to analyse folk fabric ornaments, presenting the ornament structure and methods of its creation. Milašius, Neverauskienė, Katunskis, Kazlauskienė [3] presented an adaptation of Woods-Hann classification and system of ornament creation for patterned woven fabrics. They established that 12 out of 17 possible symmetry groups were used in Lithuanian woven fabrics. Zdanavičiūtė, Milašius, Katunskis [4] created software to preserve and analyse pick-up sashes and overshot fabric ornaments, which enabled to analyze peculiarities of ornament symmetry as well as to look for a relationship between the culture's mentality and technologies.

In 1961 Balčikonis wrote that it is expedient to group patterns of fabrics according to weave because they decide the character of the pattern. We generally reviewed the main weaves (plain, twill, sateen, damask, overshot, pick-up, overlaid) used in Lithuanian folk textile, picked out characteristic weaves for some goods and discussed methods of pattern composition [5].

Many of Lithuanian ethnologists analysed weaving techniques, patterns, and colours of interior fabrics, raw material used for them. Beated-up, overshot, pick-up and overlaid weaving techniques were mostly used in bedspreads of Lithuania. Damask technique was more spread for tablecloths. Plain weave bedspreads of the beginning of the 19th century were most often checked with contrast colours. Combinations of 3 and 4 colours were used mostly. Background in beated-up bedspreads was most often black and stripes of bright colours were distributed in longitudinal direction. Later patterns of bedspreads became more sophisticated; overshot weaving technique became more popular. 2, 3, 4 and more colours were used in these fabrics. Small checks, rhombs, crossed circles, cats' foots were the most popular patterns of overshot bedspreads [6]-[9]. Overshot weaving technique came to Poland from Germany in the 17th century. At first just craftsmen weaved these fabrics. They weaved using loom up to 16 heald shafts. Polish overshot fabrics' patterns can be distributed into four groups. The main motive is in the middle of pattern and rosettes are in the four corners of pattern (the first group). In the second group elements of pattern are distributed in chess way. The third group is made from very simple elements distributed in twill line. And the fourth group consists of other patterns of overshot fabrics [10]. Pick-up technique was also used in bedspreads. In these fabrics, stylized floral and geometrical patterns were spread. Patterns of flowerpots with stylized flowers were very required [6] [9]. These bedspreads were most often weaved in two colours; pattern was made by contrast colours [7] [8].

Tablecloths the patterns of which were not so various as these of bedspreads also diversified interior of living houses. Patterns were most often geometrical: rhomb, checks of different magnitude, segmental circles etc. Overshot pattern with blue and red threads was often put in white tablecloth background like horizontal stripes [11]. White, flax, patterned tablecloths were popular in Poland. Craftsmen gave patterns of overshot tablecloths' to peasants in the 19th century [10]. Tablecloths were often decorated with red, less often blue industrial treads of high quality called "žičkai". Blue and red "žičkai" were combined in one fabric. Sometimes "žičkai" were used for weft in whole fabric [12] [13]. Tables of living house were often covered by tablecloth: for daily use—by simple one, for guests—by decorative, patterned one. Tablecloths in the beginning of the 19th century were from flax; later cotton threads were used for tablecloths. Patterns were geometrical: rhombs, bigger or smaller checks, segmental circles etc. [14].

Latvian researcher Kikule [15] examined Latvian bedspread distribution according to colours and patterns, classifying bedspreads into striped and checked patterns. Beikule, Kukle and Vilumsone [16] studied the use of Latvian folk fabrics of contemporary design. The ornaments, patterns, and colours of folk fabrics can be used in contemporary fabrics, but the application of national motifs can cause some problems.

East Prussia was distributed in part of present Poland (Varmia and Mozury district), part of present Russia (region of Kaliningrad), and part of present Lithuanian territory (Klaipėda district). Region was between the lower reaches of Memel and Wysla rivers. Capital of the province was Kaliningrad.

Original geographical place and peculiarities of historical development had influence on mode of life of people. Peasants of Lithuania Minor run different economic activities. Fishing was the main activity in countrysides near water. Bog-men who grow potatoes and animals not only for direct family needs but also for sell lived in earths of drainage bogs. Farmers who lived in rich plains made the biggest part of people. They were called earthmen. Trade ratios were in the higher level than that in other places of Lithuania in actual period of time.

People of this region used not only homemade fabrics but also industrial fabrics in the second part of the 19th century. Rich peasants had chambray hangings of bed, a few industrial bedspreads, tablecloths, slipcovers, and bed-sheets. Industrial fabrics were widespread in fishers' mode of life. Peasants also used bedspreads, night hangings, tablecloths weaved by countryside weavers-artisans. Crops of flax and hemp in Šilutė district made up just 0.006% of whole arable land (however, in North Lithuania, Šiauliai district made up 8% - 9%) according to the data of census of Lithuanian agriculture in 1930. Earthmen who lived further from the sea, in the earth in which flax could be grown kept weaving traditions for the longest time. But with the time peasants of these districts also weaved less and less.

Therefore, weaves, colours, patterns, decoration of folk home textile are wide described in literature, but there is no interdisciplinary knowledge for manufacturing of fabrics reconstructions. Otherwise, region of East Prussia is investigated very low in Lithuania and in Poland. So, the main aim of this investigation is to make complex analysis and to compare folk home textile of East Prussia weaved in territories of Lithuania and Poland presenting technological recommendations for reconstructions manufacturing.

2. Materials and Methods

In this work there were investigated 56 folk home textile pieces (27 bedspreads and 29 tablecloths) from 5 Lithuanian museums (Lithuanian Open Air Museum (LLBM)—6 bedspreads and 8 tablecloths, Lithuanian Art Museum (LDM)—1 bedspread and 3 tablecloths, Lithuanian National Museum (LNM)—3 bedspreads and 5 tablecloths, Šilutė Museum (ŠM)—14 bedspreads and 12 tablecloths and Museum of Lithuania Minor History (MLIM)—3 bedspreads and 1 tablecloth) and 48 pieces from 2 Polish museums (Central Museum of Textile (CMW)—12 bedspreads and 7 tablecloths and Museum of Archaeology and Ethnography (MAE)—13 bedspreads and 16 tablecloths). Also data from E. Nenartavičiūtė's ethnographical material sampled in expedition of Šilutė district in 2007 were used for analysis.

All fabrics were weaved in 19th century—the first half of the 20th century. The most of the analysed fabrics were weaved from the beginning of the 19th century to the middle of the 20th century. The biggest part of home textile was weaved in the 3 - 4 decades of the 20th century, less—in the end of the 19th century and the 1 - 2 decades of the 20th century. Even more fabrics were weaved in the beginning of the 20th century and in the 1 - 4 decades of the 20th century. Fabrics weaved in other periods were obtained much less.

Organolepthical methods were used for establishing of fabrics raw material and colours because the textile exhibits cannot be destroyed in order to establish these parameters using experimental methods. Raw material of fabrics was established by touching and viewing. For example, cotton threads usually are made from two separate yarns, fibre is quite short and soft; flax yarns are more rigid, fibre is longer than this of cotton; wool yarns are more crimped and rough. Colours of threads were established just by viewing at random, because using of Pantone colours palette is senseless; fabrics were used long time ago, they are faded and washed many times. Because of this reason colours of their threads can change. Other technological parameters of fabrics and threads (weave, pattern, warp and weft settings etc.) were established by experimental-analytical methods using needle, counting glass and ruler. Warp and weft settings were established by counting glass and needle calculating the number of threads in counting glass window. Pattern of fabric was established just watching into weave or colourful threads effect on fabric surface. There are found 5 different patterns in analysed fabrics: motley, fancy, plane, striped and knitted. Pattern in motley fabric is made combining fabric weave and colourful threads. In fancy fabrics pattern is made by weaves which form some relief on fabric surface. In surface of plane fabric there is pattern neither by relief nor by colourful threads. In striped fabrics pattern is made using threads of one system of different colours and threads of one colour in another threads' system. Knitted pattern is common in every knitted fabric. Fabric weave was established analysing intersection of each thread until intersection of a new thread becomes the same as this of the first thread. Needle and counting glass were used for establishing of weave. The obtained weaves were plain, reinforced twill, broken twill, diamond twill, checked twill, satin, mock leno, overshot, pick-up, overlaid, jacquard, warp rib, basket, combined, pile, knitted. Plain weave is the simplest woven fabric's weave, where every second thread in both directions is over the thread of the other system and another thread is under the thread of the other system. Reinforced twill is twill weave in which more than one warp and weft floats are one to each other. In broken twill weave diagonal line changes its direction and make "herringbone" pattern. In diamond twill primary weave is changed in both directions in such way that it makes the rhomb effect in fabric surface. Satin weave is weave in which separate threads' floats are distributed in such

way that they do not touch each other; the surface of fabric is absolutely plane. Mock leno weave makes some pores in surface of fabric and makes some effect of tracery. In overshot weave pattern is made using additional pattern weft long floats. In pick-up weave long pattern threads go through the whole fabric surface. However, pattern threads floats in overlaid fabrics are distributed just in places where fabric pattern must be created. In surface of jacquard weave fabric the sophisticated large-scaled pattern is made by different weaves. Warp rib is derived from plain weave. In these fabrics two or more threads are inserted into one shed. Basket weave is similar to plain weave weaved with thicker threads, because two or more threads in both directions are interlaced in the same way. In combined weaves a few weaves or a few methods of weave formation are used. Pile fabrics have surface covered by pile. Knitted fabrics can be manufactured by hand and industrial way with industrial knitting machines, crochet or knitting pin. Softwares "Audiniai" and "Ornamentika" created in Kaunas University of Technology, Department of Textile Technology, were used for analysis of fabrics' patterns and weaves. The plans of weaves and number of heald shafts also were established using the same softwares.

3. Results and Discussion

The first differences were obtained speaking about number of pieces in fabrics. In Lithuanian territory there were much more fabrics from two pieces (85%) and just 15%—fabrics from one piece. Small width of loom has influence to these results. In Polish territory wide weaving loom, which could weave wider fabrics, starts to spread in the 19th century. Therefore, fabrics of 1 and 2 pieces in bedspreads weaved in Polish territory were spread in similar amount. The distribution of tablecloths weaved in Lithuanian and Polish territories were similar, *i.e*. the tablecloths of 2 pieces were more popular, fabrics of 1 piece were less widespread. One tablecloth sewed from many small fabric pieces was obtained in Lithuanian territory.

5 types of patterns were used for bedspreads of Lithuanian territory. The most widespread were motley and fancy patterns. Fewer amounts of plane, knitted and striped patterns fabrics were found. White, thick, patterned bedspreads were popular in Lithuanian territory. Only motley pattern was used for bedspreads weaved in Polish territory. Fabrics, in the surface of which some pattern made by combination of weave and threads colours are seen, were used for motley pattern. Fancy pattern dominated in tablecloths weaved in Lithuanian territory. This pattern was used for fabrics the pattern of which is formed by weave but not by colours. Fabrics of plane pattern were in the second place, in the third place—motley fabrics. Knitted and checked pattern was obtained in very small amount. Motley and fancy fabrics were used for tablecloths weaved in Polish territory. Tablecloths were the most often from cotton, checked with blue checks, but white colour dominated. White embroidered tablecloths were the most often used for holidays.

Fabrics weaved in the end of the 19th century, the beginning of the 20th century, the 1 - 2 decades of the 20th century and 2 - 4 decades of the 20th century were the most variable in the point of view of pattern. In the fabrics weaved in these periods there were obtained fabrics weaved in plane, fancy, mothley and checked patterns. However, fabrics weaved in fancy pattern dominated in many periods. Just fabrics weaved in the second half of the 19th century and the middle of the 20th century were weaved in checked and mothley patterns. Therefore, very clear chronological tendencies of pattern change were not found, although not very expressed changes of patterns vairety increase could be seen.

One-colour bedspreads weaved in Lithuania territory dominated. Fabrics of two colours were less popular. Fabrics of three and four colours were less common. Also a few bedspreads weaved with six colours were found. However, it can be stated that the fabrics weaved in small amount of colours were dominant. Fabrics of one colour were not found in bedspreads weaved in Polish territory, and the combinations of two colours were the most widespread. Combinations of three, four and six colours were less popular. Also combinations of five colours and seven colours were obtained. Talking about tablecloths, in territories of both countries the fabrics with small amount of colours (1 - 2 colours) were spread, just their distribution was different. Fabrics of one colour dominated in Lithuanian fabrics, combinations of two colours were less widespread. Therefore, fabrics of two colours dominated in territory of Poland, fabrics of one colour were in the second place. The simple combinations of 3, 4 and 5 colours were found in Lithuanian tablecloths.

Analysing chronological tendencies of change of colours' number it was established that the most variety of colours was for fabrics weaved in the end of the 19th century and the 3 - 4 decades of the 20th century—in these fabrics were even five variants of fabrics with different number of colours. Fabrics weaved in the beginning of the 20th century and the 1 - 2 decades of the 20th century distinguished by 1, 2 and 3 colours. Other fabrics

weaved in earlier and later periods were weaved only in separate variants of numbers of colours, so, it can be stated that chronological tendencies of number of colours were not obtained.

Bigger variety of weaves was used in bedspreads (14 weaves) than in tablecloths (11 weaves). Beds were covered with bedspreads weaved from flax, cotton and wool threads with twill, overshot, satin and pick-up weaves in Lithuanian territory. The overshot bedspreads weaved with 4 or 8 harnesses were the most common. Cotton, less rarely flax threads were used for warp and background weft, wool, flax or cotton threads—for pattern. So, overshot weave of four harnesses was the most common. Mock leno weave was less popular in Lithuanian bedspreads, pick-up and jacquard weaves were less widespread. Overlaid, checked twill, reinforced twill, diamond twill and satin weaves which were popular in fabrics weaved in Polish territory were not obtained in bedspreads weaved in Lithuanian territory. Also there was a few bedspreads weaved in overshot weave of 8 harnesses in Polish territory. Pick-up weave was in the second place in Polish fabrics. Plain, checked twill, overshot of 4 harnesses and mock leno weaves dominated in tablecloths weaved in Lithuanian territory. Knitted, jacquard and pile fabrics were less popular. Broken twill, warp rib, basket and combined weaves were less used. Overshot of 4 harnesses weave dominated in fabrics weaved in Polish territory and checked twill weave, which was popular in Lithuanian fabrics, was not obtained at all. Mock leno and plain weaves were less common. Other weaves were not found in fabrics weaved in Polish territory.

Analysing chronological distribution of fabrics weaves variety of fabrics increased with the later period of fabrics weaving. For fabrics weaved in the 1 - 2 decades of the 20th century (8 different weaves) and the 3 - 4 decades of the 20th century (13 different weaves) the biggest variety of weaves was common. In fabrics weaved in other periods the less variety of weaves (1 - 6 different weaves) was used.

Overshot of 4 harnesses weave was combined with motley pattern in bedspreads weaved in Polish territory. Combinations of 2 and 3 colours were obtained. Grey-blue, black-brownish, blue-white and white-green colours were conformed in fabrics of two colours. Green-red-white colours were used in fabrics of three colours. However, distribution of colours and their numbers in fabrics weaved in Lithuanian territory was more variable—the combinations of 1, 2, 3 and 4 colours were obtained. Fabric of one colour was weaved from white threads. Green-black, white-greyish, white-black colours were conformed in fabrics of two colours. Combinations of three colours were white-pink-red, white-black-red. Grey-blue-pink-white colours were conformed in fabric of four colours. Overshot of 4 harnesses weave was conformed the most often in motley pattern in bedspreads weaved in Lithuanian territory, but it was combined with fancy pattern in some fabrics. A few of these fabrics are shown in **Figure 1**.

Fancy pattern was common for fabrics weaved with mock leno weave in Lithuanian territory. All of them were white, weaved in one colour. These fabrics are shown in **Figure 2**.

Such combinations of colours were characteristic for pick-up fabrics of two colours weaved in Polish territory: yellow-black, white-black, and white-grey. Motley combinations of two colours were common in bedspreads weaved in Lithuanian territory: yellow-black, brown-brick, and white-green. A few of these fabrics are presented in **Figure 3**.

Also a few jacquard fabrics, which were weaved using white threads in fancy pattern, were obtained in Lithuanian territory. They are shown in **Figure 4**.

Overshot of 8 harnesses, checked twill and plain weaves were used less rarely. Overshot of 8 harnesses weave was combined with two colours (white-grey) and motley pattern in fabrics weaved in Polish territory. In Lithuanian territory there were white fabrics of one colour and fancy pattern. Fabrics of checked twill weave were combined with brown and violet colours, weaved in motley pattern.

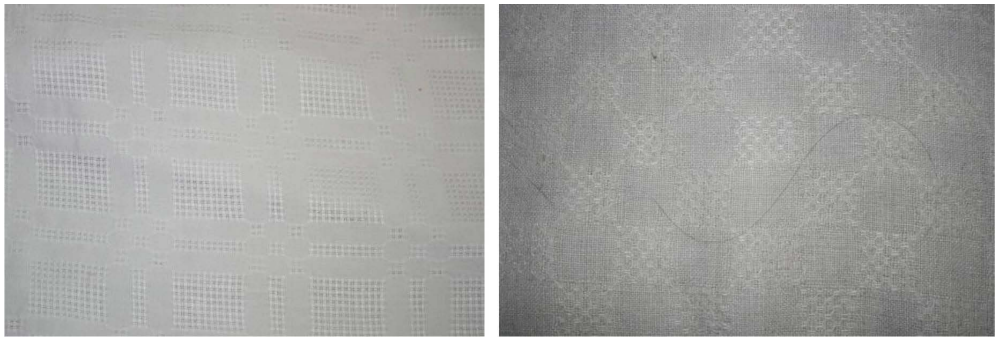
Overshot of 4 harnesses tablecloths conformed in motley and fancy patterns. They were often weaved in 2 colours, less rarely in 1, 3 or 4 colours. Combination of white-red dominated in fabrics weaved in Polish territory; less rarely red-black, purple-grey colours were combined. Also there was one white fabric weaved in one colour and fancy pattern. In Lithuanian territory there were a few white fabrics of one colour, blue-red-white were used in combinations of 3 colours, blue-red-black-white—in combinations of 4 colours. A few of overshot of 4 harnesses fabrics are shown in **Figure 5**.

Intervals of number of harnesses were chosen according to possibilities of weaving technique in contemporary weaving loom: from 2 to 8 harnesses—loom with calm shedding mechanism can be used; to 24 harnesses – loom with dobby can be used; over 24 harnesses—loom with jacquard machine should be used. Fabrics weaved with 4 harnesses dominated in bedspreads of Lithuanian territory. Also fabrics weaved with 2 harnesses were spread. Fabrics weaved with more than 24 harnesses, with 5 - 8 harnesses and 9 - 24 harnesses were less popular.

(a) (b)

(c) (d)

Figure 1. Bedspreads weaved in overshot of 4 harnesses weave: (a)—LA6705 (LDM), fancy fabric of one colour; (b)—EMO2740 (LNM), motley fabric of two colours; (c)—EMO4955 (LNM), motley fabric of three colours; (d)—E3606/227 (MLIM), motley fabric of four colours.



(a) (b)

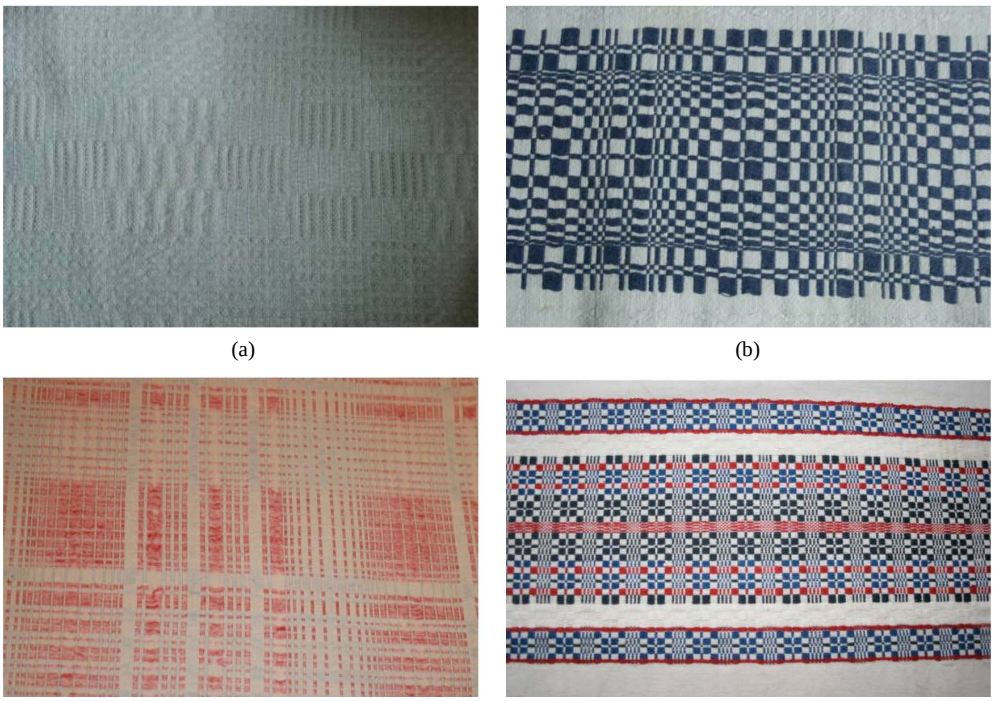
Figure 2. Bedspreads of mock leno weave: (a)—18078 (MLIM); (b)—LM330 (ŠM).

(a) (b)

Figure 3. Bedspreads of pick-up weave: (a)—LM478 (ŠM); (b)—LM479 (ŠM).

(a) (b)

Figure 4. Bedspreads of jacquard weave: (a)—LBM38733 (LLBM); (b)—LBM38734 (LLBM).



(a) (b)

(c) (d)

Figure 5. Tablecloths of overshot of 4 harnesses weave: (a)—LA6721 (LDM), one colour, fancy; (b)—LA6712 (LDM), two colours, motley; (c)—LM442 (ŠM), three colours, motley; (d)—EMO1169 (LNM), four colours, motley.

However, bedspreads weaved with 4 harnesses dominated in Polish territory. There were mostly overshot, less rarely not complicated mock leno fabrics. Fabrics weaved with more than 24 harnesses were less popular. There were pick-up and jacquard fabrics. Fabrics weaved with 5 - 8 harnesses and with 3 harnesses were not common. Tablecloths weaved with 5 - 8 harnesses dominated in Lithuanian territory. These fabrics were weaved in checked twill or satin weaves the weave repeats of which usually were large but for weaving 8 harnesses were enough. Fabrics weaved with 4, 2 and more than 24 harnesses were less popular. Fabrics weaved in other number of harnesses were used rarely. Only tablecloths weaved with 4 harnesses and with 2 harnesses were obtained in Polish territory. Therefore, it can be noticed that although weave repeats are large but in many cases lower number of harnesses was needed.

Investigating chronological tendencies of number of harnesses it can be noticed that more complicated weaves for which larger number of harnesses (9 - 24 or over 24) was used became more popular in fabrics weaved in the 1 - 2 decades of the 20th century and 3 - 4 decades of the 20th century. Fabrics weaved in large number of harnesses in other periods were used very rare. So, it can be stated that with the time more compli-

cated weaves and fabrics, for which larger number of harnesses was used, started to be used.

Combination of interior and fabrics was made according to the peculiarities of East Prussia dominated in the 19th century—the beginning of the 20th century. The common colours and fabrics' textures, which were combined one to each other, were separated. Colours and fabrics were chosen and combined in two ways: tones separated just by not bright shades were combined (tablecloths and bedspreads were decorated by patterns of bleached and unbleached flax and cotton threads); contrast, intensive colours were chosen (bedspreads were weaved in this way combining warm and cold, dark and light, active and passive colours. Expressive contrast colours combinations were rhythmically spread out in the fabrics).

Interior components had their colours, which were chosen according to not only functional purpose of thing, but also to its place in the room. Avoiding monotony of plane of greyish interior people covered beds and tables with motley fabric, decorated furniture with colourful ornament etc. Properly spread out colours separated and joined room space into harmonious whole.

Reconstructions of bedspreads and tablecloths of East Prussia district were weaved according to the done analysis. Some of these reconstructions are shown in **Figures 6-9**.

Part of fabrics (57.02 m) was weaved with industrial weaving loom in joint stock "Lincasa" which manufactures flax home textile fabrics, the other part of fabrics (66.75 m) was weaved by hand weaving loom.

4. Conclusions

1) 5 types of patterns, from which motley and fancy were the mostly widespread, were used for bedspreads weaved in Lithuanian territory. Only motley pattern was characteristic for bedspreads weaved in Polish territory. Fancy pattern dominated in tablecloths weaved in Lithuania. Fabrics of plane and motley pattern were less popular. Therefore, motley and fancy patterns were common in tablecloths weaved in Polish territory.

Tablecloth:
According to tablecloth EMO4955/3 (LNM).
Weaved by industrial weaving loom.

Design of fabric

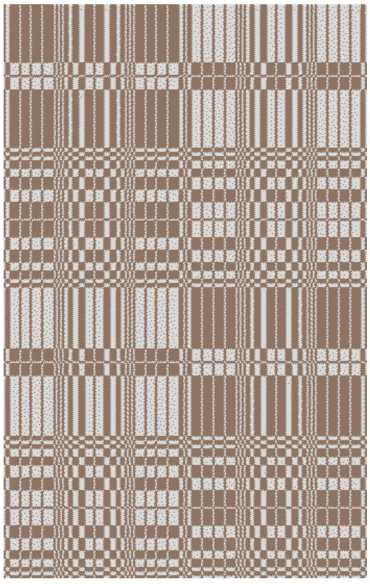
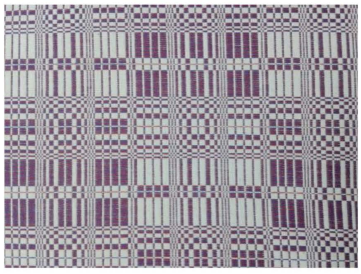


Photo of original

Photo of reconstruction



Repeats: warp – 348, weft – 552.

Weaves: brown -  , greyish -  .
Settings: warp – 21 cm^{-1}, weft – 32 cm^{-1}.
Length of repeat – 17.5 cm; length of fabric – 250 cm; number of repeats in fabric – 15; number of weft threads in fabric - 8280.
Weft colour repeat: 1 white, 1 red, 1 white, 1 blue.
Number of colourful threads in repeat: white – 276, blue – 138, red – 138.

Figure 6. Tablecloth according to EMO 4955/3.

Tablecloth:
According to tablecloth LA6712 (LDM).
Weaved by industrial weaving loom.

Design of fabric **Photo of original**

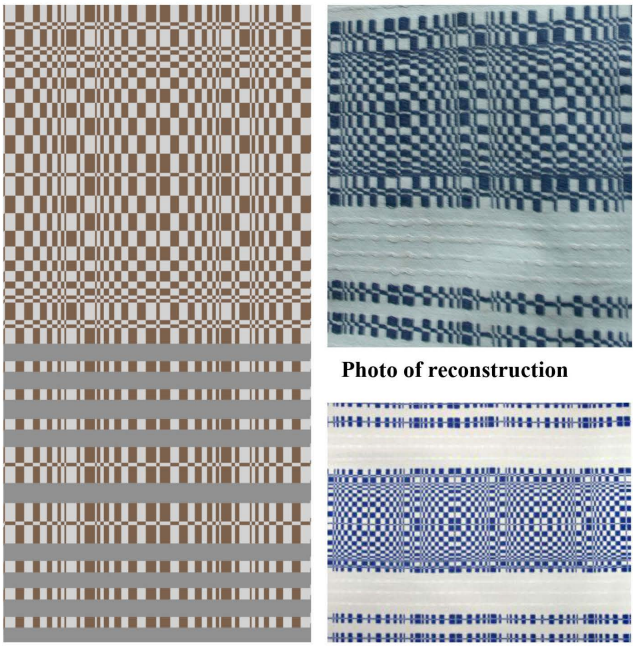


Photo of reconstruction

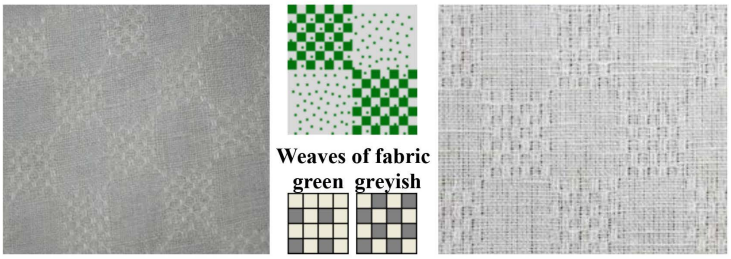
Repeats: warp – 352, weft – 728.

Weaves: brown - , greyish - , grey - .
Raw material: cotton 50 tex.
Settings: warp – 21 cm^{-1}; weft – 32 cm^{-1}.
Length of repeat – 23 cm; length of fabric – 2.5 m; number of repeats in fabric – 11; number of threads in fabric – 8008.
Weft colour repeat: 116 white, (1 white, 1 blue)x22, 20 white, (1 white, 1 blue)x22, 116 white, (1 white, 1 blue)x194.
Number of colourful threads in repeat: white – 490, blue – 2618.

Figure 7. Bedspread according to LA6712 (LDM).

Tablecloth:
According to tablecloth LM343, GK194 (ŠM).
Weaved by industrial weaving loom.

Photo of original **Design of fabric** **Photo of reconstruction**



Weaves of fabric
green **greyish**

Repeats: warp – 56, weft – 56.
Raw material: warp – cotton 50 tex, weft – flax 50 tex.
Settings: warp – 21 cm^{-1}, weft – 32 cm^{-1}.
Length of repeat – 3.5 cm; length of fabric – 5.95 m; number of repeats in fabric – 170; number of threads in fabric – 9520.
Weft colour repeat: white.

Figure 8. Tablecloth according to LM343, GK194 (ŠM).

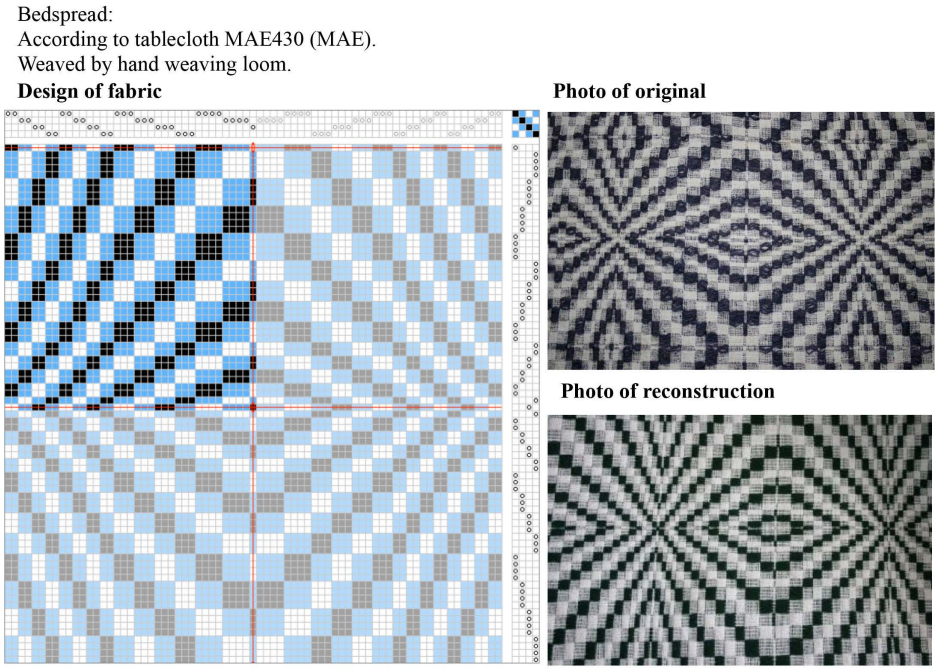


Figure 9. Bedspread according to MAE430 (MAE).

2) A larger variety of colours of bedspreads (14 colours) than of tablecloths (7 colours) was used. Combinations of one or two colours were used in bedspreads and tablecloths weaved in territories of Lithuania and Poland.

3) A larger variety of weaves (14 weaves) in bedspreads than in tablecloths (11 weaves) was used. Overshot with 4 harnesses was the most popular in bedspreads. There were no overlaid, checked twill, reinforced twill, diamond twill and satin weaves in Lithuanian territory but they were spread in fabrics weaved in Polish territory. Although repeats of many weaves were large, 2 - 8 harnesses were enough for weaving of these fabrics.

4) During chronological analysis of investigated fabrics, the dependences of number of harnesses on their weaving period were established. With the time more complicated weaves, for which a larger amount of harnesses was needed were started to be used. The chronological tendencies of pattern and number of colours used for fabrics were not established.

5) According to the separated samples of home textile from East Prussia region, the reconstructions of home textile fabrics were designed and weaved: 24 units (123.77 m), 12 units of them—with industrial weaving loom, 12 units—with hand weaving loom.

Acknowledgements

Authors thank the Research Council of Lithuania for supporting of this investigation (project number VAT-45/2012).

References

[1] Kazlauskienė, I., Neverauskienė, D. and Milašius, V. (2000) The Symmetry Peculiarities of Designs of National Lithuanian Woven Fabrics—Pick-Up Sashes and Overshot Fabrics. *Proceedings International Conference the Textiles: Research in Design and Technology*, Kaunas, 21-22 September 2000, 84-92.

[2] Katunskis, J., Milašius, V. and Taylor, D. (2004) Software for Creation of a Database of Ornamentation of National Woven Fabrics. *Fibers & Textiles in Eastern Europe*, **4**, 43-46.

[3] Milašius, V., Neverauskienė, D., Katunskis, J. and Kazlauskienė, I. (2002) The Mathematical Basis of Ornamentation

of Patterned Woven Fabrics. *Fibers & Textiles in Eastern Europe*, **4**, 34-39.

[4] Zdanavičiūtė, I., Milašius, V. and Katunskis, J. (2006) The Peculiarities of the Ornamentation of Lithuanian Traditional Woven Textiles. *Fibers & Textiles in Eastern Europe*, **2**, 37-40.

[5] Balčikonis, J. (1961) Patterns of Woven Fabrics, Valstybinė politinės ir mokslinės literatūros leidykla, Vilnius. [In Lithuanian]

[6] Peculiarities of Lithuanian Ethnography (1964) Valstybinė politinės ir mokslinės literatūros leidykla, Vilnius. [In Lithuanian]

[7] Kudirka, J. (1984) Territorial Peculiarities of Folk Art. Peculiarity of Folk Art, 95-102. [In Lithuanian]

[8] Tallat-Kelpšaitė-Niunkienė, G. (1988) Colours of Bedspreads. Colour in Lithuanian Folk Art, 32-36. [In Lithuanian]

[9] Šaknienė, M. (1984) Colours and Their Compositions of Woven Fabrics. Peculiarity of Folk Art, 62-65. [In Lithuanian]

[10] Matusiak, M. (1961) Folk Overshot "Dyvany" in Lubelszczyzna. *Polska Sztuka Ludowa*, **3**, 145-152. [In Polish]

[11] Nenartavičiūtė, E. (2008) Peculiar Conditions of Historical Development of Klaipėda Disrict. Ethnographical Material, Lithuanian Open Air Museum, Lithuania. (In Lithuanian)

[12] Kudirka, J. (1989) Lithuanian Folk Ornaments. Children and Folk Creation, 93-107. (In Lithuanian)

[13] Šidiškienė, I. (1988) "Žičkai" in Fabrics and Cloths. Colour in Lithuanian Folk Art, 75-83. (In Lithuanian)

[14] Glemžaitė, M. (1958) Traditions of Spinning and Weaving in Lithuania. *From History of Lithuanian Culture*, **1**, 213-217. (In Lithuanian)

[15] Kikule, D. (2000) Bed Spread Colour Composition Principles in Latvia in the End of the 19th Century and the Beginning of the 20th Century. *Proceedings of International Conference the Textiles*: *Research in Design and Technology*, Kaunas, 21-22 September 2000, 195-200.

[16] Beikule, I., Kukle, S. and Vilumsone, A. (2000) Latvian Material Culture Traditions as a Source of Contemporary Designs. *Proceedings of International Conference the Textiles*: *Research in Design and Technology*, Kaunas, 21-22 September 2000, 69-75.

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

Other selected journals from SCIRP are listed as below. Submit your manuscript to us via either submit@scirp.org or Online Submission Portal.