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Lithuanian Folk Textile Heritage: Expressive Possibilities of Designs

DOI: 10.5604/01.3001.0012.1324

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Abstract

Lithuanian folk textile heritage is an important part of world culture heritage, on which various ideas and traditions are imprinted with the emphasis on the education of self-consciousness of society and preservation of national identity. This paper deals with a complex analysis of Lithuanian national fabrics, the data of which have been collected by the authors' abundant expeditions into Lithuanian rural territories. The current research presents the peculiarities of designs, colours and ornamentation of authentic woven textile manufactured since the middle of the 19th century up to now. The significance of this study is that it investigates only authentic textiles obtained from weavers or their relatives in Lithuanian villages, and the presence of these articles has been undisclosed up to now. This research presents collected, registered and investigated data concerning colours, ornamentation and patterns as expressive possibilities of designs of Lithuanian folk textile: dimai and pick-up fabrics. The current analysis discovers new features of originality of the national fabrics.

Key words: folk fabric, pattern, ornament, textile design, textile heritage.

Introduction

Textile and clothing of the modern world [1] are most often inspired by folk-wear. The techniques and forms of traditional arts evolve slowly, thus it is necessary to enrich the creative efforts of designers in terms of creativity, in order to promote the originality and diversity of clothing, which are necessary elements in the fashion industry, for which art is an important and invaluable source [2]. Several studies deal with traditional folk textile of different countries: Italy (wool fabric *Tuscan Cloth* – local Tuscan wool from 50% Sardinian and 50% Comisana sheep wool, among others) [3], Japan (traditional Japanese fabrics *Chirimen* for kimonos, where *Chirimen* is the generic name for silk fabric with crimps of its surface, in which right- and left-laid hard-twist yarn is alternately woven to make weft yarn) [4], Greece (traditional Greek hand-woven fabrics from the area of the Aegean) [5], and Latvia (Latvian traditional fabrics of national costumes) [6-8]. It is important that the ornamentation, colours and patterns of folk textile can be used as a source for modern designs [2, 9]. Such investigations are also significant in defining the interdisciplinary position [10]. Besides even textiles of the new millennium like smart materials are interesting from such points of view as semantic expression and symbol function, and they also have a multidisciplinary nature [11].

For centuries, Lithuanian national fabrics had importance in everyday festival life and rituals. Bed, table and

floor covers, towels, sashes and mats adorned home interiors. At weddings, the bride's fabrics were given as gifts. In christening ceremonies, the sash was of great significance. In funeral ceremonies, the lay-out place, room and setting were decorated with textile spreads, sashes and towels. Moreover hand-made textiles decorated church alters, floor and vestry interiors, as well as being used to dress procession participants and for flags [12]. In this reference, data on the ornamentation of traditional Lithuanian fabrics are also given.

During the last decade, new publications about some types of traditional Lithuanian fabrics have been published in Poland, Turkey and Croatia [13-16].

The ornamentation of Lithuanian national fabrics are influenced by weaving technology, raw materials and specific use [17, 18] According to [19], dedicated to Polish folk textile, checked fabrics were mostly used in districts which border Lithuania.

Folk textile is an important field of material heritage, which is very time-sensitive, and its preservation is significant due to the gradual disappearance of old Lithuanian villages and handicrafts. Especially it is significant to investigate and reasonably systematise unknown cultural matters that could help to reveal and conserve national identity as well as features of regional cultural peculiarities, and make possibilities to reconstruct tradition into modern articles. Consequently folk textile in Lithuania has played and still

plays a significant role as an important symbol of the times.

The aim of the current research was to collect, register and evaluate new data concerning coloration and ornamentation as expressive possibilities of designs of original Lithuanian folk textile articles that are still extant in private collections of rural masters or their families. The material of investigation extended the available knowledge, complementing textile tradition with new authentic, visual and factual data which will be the basis for further interdisciplinary investigations of heritage, technologies, and cultural history.

Experimental

Materials

The object of the investigation is national overshoot and pick-up fabrics newly discovered during expeditions performed by the authors into rural territories of Lithuania where spinners and weavers are still in residence. Moreover in many cases to date home-made fabrics have been important not only in fulfilling everyday needs but also for national traditions and popular creations. The area investigated includes North and East regions of Lithuania (Figure 1). This territory was chosen because it is very peculiar from the national textile viewpoint: weaving traditions of national fabrics are old in this region, but not much studied in scientific papers, and the fabrics are particularly colourful, being of various patterns and originally ornamented. The continuation of traditional handicrafts is vital here.

As materials of the analysis, more than 300 *dimai* (Lithuanian overshoot fabrics) as well as pick-up textile articles were found and examined. The ornamentation of *dimai* is developed on a weaving loom only, while that of pick-up fabrics is additionally created by the master's hand. It was observed that the overshoot fabrics investigated have been woven since the 7th decade of the 19th century until today. Such a long time period illustrates the importance and worth of heritage retention by masters' families. The relevance of this craft is great in Lithuania: we estimated that 4.3% of the fabrics investigated have been made during the last decade, i.e. since 2011. The weaving of pick-up articles is known until today also.

Methods

The data collected provides information about weaving peculiarities, techniques, ornamentation, the experience of masters, and the significance of hand-made fabrics used in everyday and festive settings. Fieldwork was performed during numerous ethnographic expeditions. The data was collected through several questionnaires developed by the authors. In the current study, information about the colours of yarns and dimensions of pattern repeats of fabrics was used as a source for further analysis. The dimensions of pattern repeats in millimetres were measured in the width and height directions. The width of the pattern repeat was examined in the direction of fabric width, and the direction of the pattern repeat height corresponds to the longitudinal direction of the fabric. One more index, the values of which were used in this



Figure 1. Map of Lithuania and geographical location of investigated districts with their centres: ■ Vilnius, ■ Utena, ■ Panevėžys.

paper, is the ratio of the pattern repeat width to the pattern repeat height, which was applied as the measureless index. Additionally the sizes of borders, i.e. border widths in the warp and weft directions were measured and analysed. Traditional statistical methods for data analysis were used.

Results and discussion

Peculiarities of fabric structure

Lithuanian national fabrics of the *dimai* type are overshoot structures woven using two ground sets: ground warp yarns and ground weft yarns, and one more set of wefts, i.e. patterning wefts (Figure 2). In overshoot fabrics woven using four

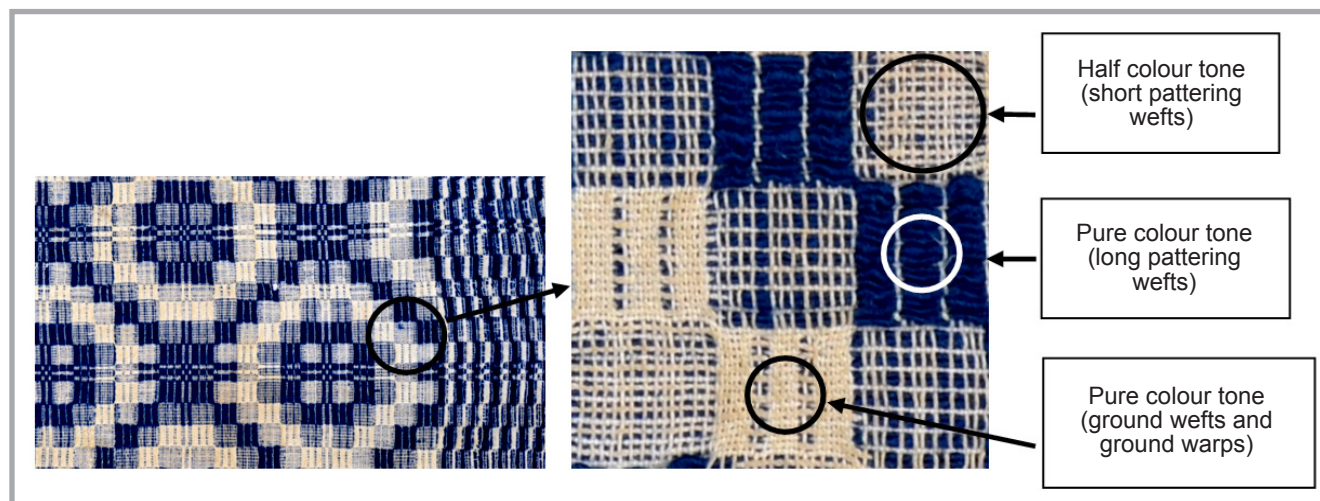


Figure 2. Structure and colouring originality of overshoot fabric (a) woven using 4 harnesses: fragment of fabric and colour tones (b).

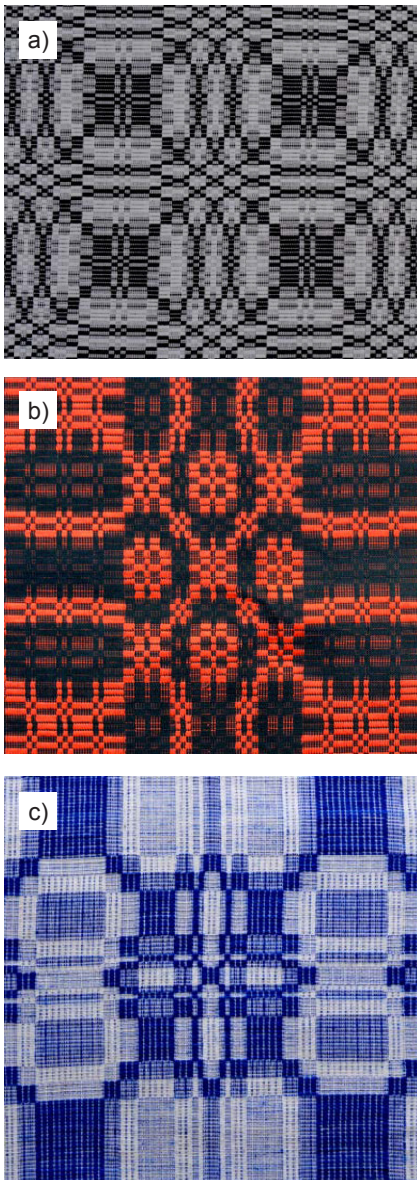


Figure 3. Ripple effect in fragments of overshot fabrics woven using 4 harnesses: a) cloth for lay-out place, chemical/cotton; b, c) bed spread; chemical/cotton (c – [16]).

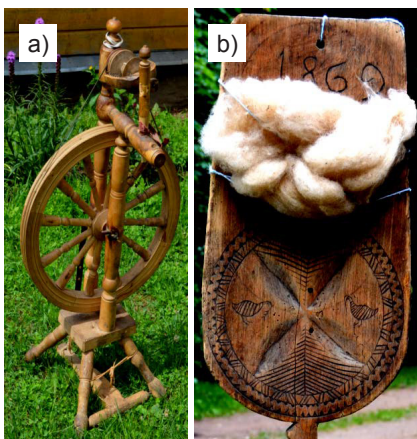


Figure 4. Handle spinning equipment: a) spinning wheel, Vilnius district, ~1975; b) ornated distaff, Vilnius district, 1869.

harnesses, the patterns are made of three colour tones: two pure colour tones, i.e. one of long patterning wefts, the second of ground wefts and ground warps, meanwhile, and the third is a half colour tone made of short patterning wefts.

For this reason, overshot fabrics woven using four harnesses is distinguished by their ripple effect (**Figure 3**), which is a very expressive peculiarity. In the case of pick-up fabrics, the pattern is additionally developed by hand, where harnesses are used only for background weaving, and the process does not depend entirely on loom possibilities.

Raw material

Generally linen spun yarns are widely used for all domestic textiles. For hundreds of years, flax has been the main fibrous material [20] in domestic cloth and home textiles of Lithuania. Furthermore since the 14th century, flax fibres and linen spun yarns have been one of the main goods extensively exported from Lithuania to Western Europe. For instance, according to the data from paper [14], the combination of linen spun yarns with cotton spun yarns is very frequently used variant (35.7%). Thus flax fibre is in common use for the fabrics investigated, but yarns made from other natural fibres, for instance, from wool and cotton also are popular. Cotton spun yarns are appreciable because of their small linear density, good strength and high uniformity. The wool from Lithuanian sheep breeds is quite coarse, but wool spun yarns are used because of their warmth, longevity, bulky appearance and utility. As a rule, factory-made cotton spun yarns are applied. Meanwhile linen and wool, more rarely hemp yarns, or blends made from wool/chemical fibres are also spun by rural masters, for which they use an old spinning technique: handle spinning with a spindle or spinning wheel (**Figure 4.a**). Some yarns are manufactured in spinning workshop/factories.

Furthermore in Lithuania the spinning wheel is distinguished not only for its technical requirements but in an aesthetic context as well. The highest manifestation of artistic expression is found in distaffs, i.e. the boards to which tufts of fibre are fixed [20]. Commonly they are very highly ornamented (**Figure 4.b**). Our expeditions confirmed that until today the spinning wheel is still in use in rural society, illustrating the importance of

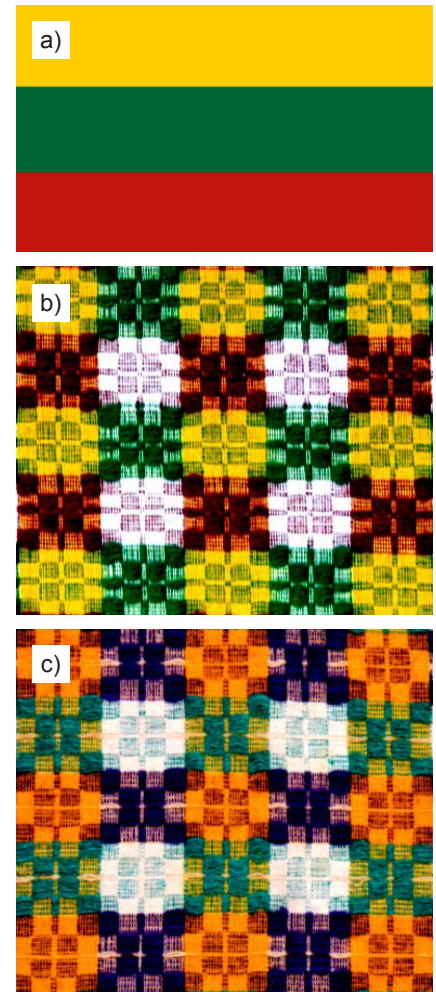


Figure 5. Lithuanian national flag: a) and emotional expression of colour combinations in fragments of fabrics; b) colours of Lithuanian national flag (yellow, green, and red) in fabric (fragment of bed spread, 4 harnesses); c) modification of these colours (fragment of bed spread, 4 harnesses).

such heritage retention by the master's family.

Linen, wool, chemical and blended spun yarns or multifilament yarns in overshot and pick-up fabrics are mainly used as patterning weft for ornamentation and cotton for the background. Chemical multifilament yarns are mostly preferable because of their lustrous, brilliant colours. However, the applications of multifilament yarns are not connected with appreciable tradition in Lithuanian textile heritage. As example, a brightly coloured synthetic fibre called *Polotsk* (the term derives from a well-known producer of man-made fibres in the city of Polotsk, Belarus) was widely used by Lithuanian weavers during the period of the second part of the 20th century for the

Table 1. Colours and their combinations in overshot fabrics.

Colours* and their distribution in fabrics			Mostly used combinations of colours in two-coloured fabrics			
Colour		Frequency, %	Colour		Frequency, %	
White		70.5	White	Grey	20.2	
Black		28.1		Brown	21.7	
Red		24.3		Blue	6.8	
Brown		21.9		Red	6.3	
Grey		19.0		Green	4.8	
Yellow		16.7		Black	4.8	
Green		14.3		Yellow	2.6	
Blue		11.0		Red	7.5	
Orange		3.8		Yellow	10.7	
Violet		1.4		Green	2.1	
* Number of colours in one fabric could be multimorph			Black	Orange	2.1	
				Red	2.1	
			Yellow		8.3	
			Other colour combinations			

development of decorative ornamentation of woven fabrics.

Colours, patterns & decoration

The folk fabrics are very original in their colours. **Table 1** shows the colours and their combinations used for overshot fabrics. Statistics of the colours are given in terms of their frequencies.

Natural grey or brownish colours are highly suitable for some purposes like table covers and towels. It must be noted that later manufactured textiles, especially materials no more than 60 years old, are mostly brightly coloured in spite of the fact that they not only have a festive use but an everyday one also. Of course, the colour of patterning wefts very much depends on the purpose of the textile. Use possibilities of the articles investigated are as follows: table covers, towels, bed spreads, folk costumes, horsecloth/body cloth, cloth for the lay-out place, curtains, and fabric with double usage, for example as a bed spread and table cover. As shown in **Table 1**, white colour and all shades of black, red, brown, yellow, green and blue are in common use. The greatest individual frequency of use, i.e. 70.5%, was observed for white colour. The skill to achieve an attractive fabric [21] consists of combining such elements as yarn (density, structure), weave and weave-colour combination; but the effect of colour is immediate, direct, spontaneous, and lasting.

The current research also confirmed that many fabrics of Lithuanian folk heritage have very lively colours. For instance, the individual frequencies of yellow, green or red, i.e. the colours of the Lithuanian national flag are 16.7, 14.3 and 24.3%, respectively. This colour combination

induces a special emotional expression as a sense of visual harmony (**Figure 5**).

Other research [22] notes that Lithuanian folk overshot fabrics are usually two coloured. Our data confirmed this fact because the overshot fabrics investigated are woven using combinations of two colours, even in as many as 90.0% of articles. Other combinations are rare, i.e. of 3 colours – 1.4%, 4 colours – 3.8%, 5 colours – 2.4%, and 6 colours – 0.5%. In the two-coloured fabrics, the variant with white colour is a prevailing trend (67.2%). Impressive harmonious combinations of different light shades could be obtained from monochromatic colours also [21]. We found that about 1.9% of the overshot fabrics investigated had monochromatic colours, i.e. the analysis of monochromatic overshot fabrics for which bleached linen spun yarns or a combination with a natural light grey/brownish flax colour affirmed this fact. This is especially inherent in table covers and towels that exhibit very authentic and unique patterns of Lithuanian folk textile. Moreover, the towels have very significant value in Lithuanian life. For instance, it is known that a famous weaver once shared out about 20 – 30 towels as gifts during a wedding celebration. As many years ago and so today, masters also manufacture *dimai* and pick-up towels for the decoration of home interiors. Such towels hanging down on wooden towel-horses which are especially artistically carved make a pretty and antique impression. **Figure 6** presents the colour combinations and interaction between colours in the fabric.

For checked design fabrics, a harmony of colours can be obtained through colour similarity, drawing on various forms of the same colour or shades of

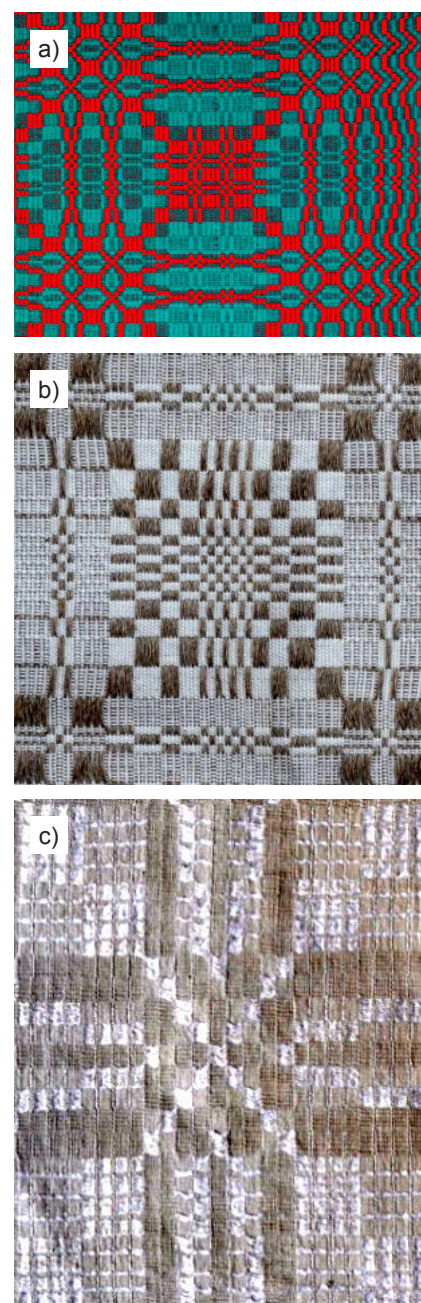


Figure 6. Harmony of colour combination and interaction between colours in fabric fragment: a) contrasted colours (4 harnesses, wool/chemical/cotton, bed spread, 1973); b) two-coloured fabric (4 harnesses, linen/cotton, towel, 1983); c) monochromatic fabric (8 harnesses, linen/cotton, bed spread/table cover, ~1913).

colour next to the chromatic circle, as well as through contrast, drawing from colours that are at a greater distance from each other on the colour circle [21]. In many cases we found such harmonious ornamentation because of the suitable colour combination and play between each other (**Figure 6**). Achromatic colours like white and black are better

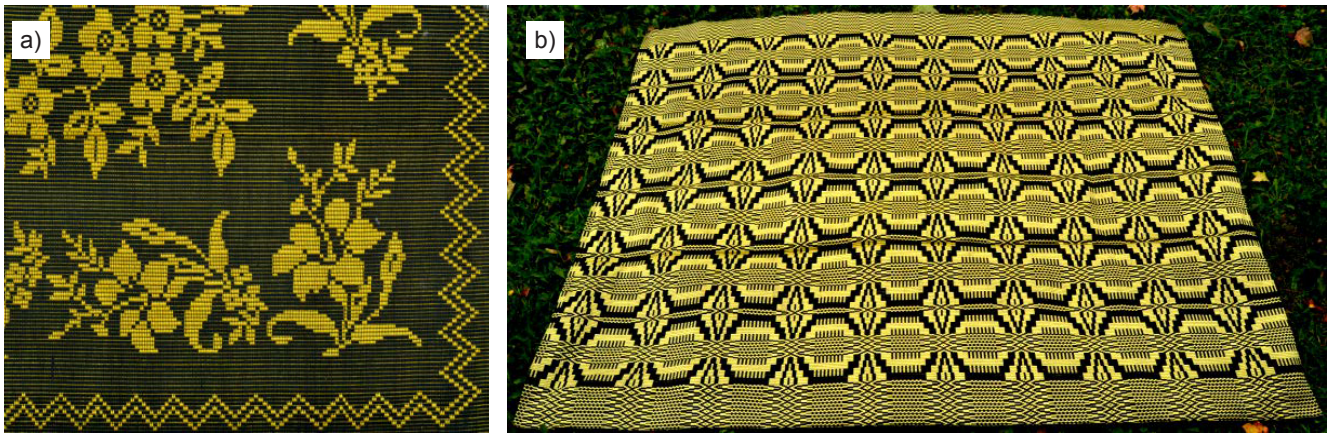


Figure 7. High lightening examples of warm colour in combination with black one: a) fragment of pick-up fabric (bed spread), chemical/cotton; b) overshoot fabric, bed spread, chemical/cotton, 8 harnesses.

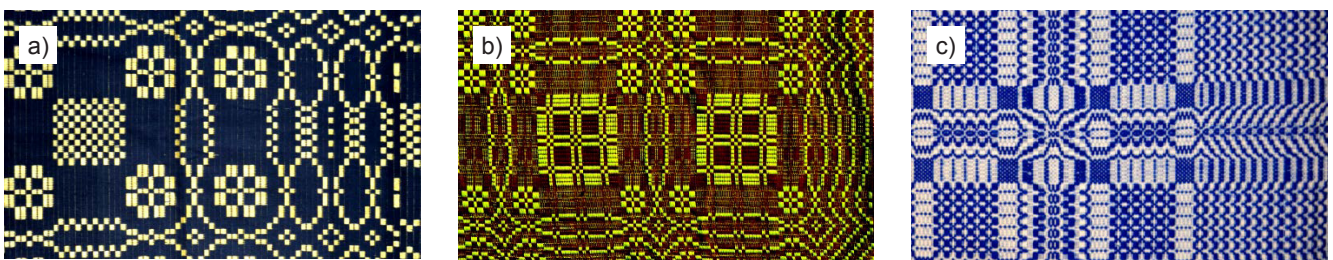


Figure 8. Samples of fabric ornament: a) with one border (fragment of bed spread, chemical/cotton, 8 harnesses, 1970); b) with both borders (fragment of bed spread, wool/chemical/cotton, 4 harnesses, 2013); c) with one border (fragment of bed spread, chemical/cotton, 4 harnesses, ~1983).



Figure 9. Examples of motifs: a) cat's feet (or cudweed); b, c) oak leaf; d) clover leaf; e) harrow.

associated with chromatic ones [21]. The following trend is evident from our data: warm colours are better highlighted in combination with more obscure achromatic ones like black or dark grey (*Figure 7*). Furthermore the most colourful Lithuanian folk fabrics are used for horsecloth/body cloth and bed spreads.

The same but differently coloured ornamentation could make new pattern variations, hence the repeats of more coloured fabrics have more variations of colour expression. Patterns of the overshot fabrics *dimai* investigated are made out of squares and rectangles of various sizes. Generally these patterns are made from the planes of different sizes combined together. The borders of the article on all sides or on two are ornamented through adapting lines that repeat the main ornamentation next to the main pattern. *Figure 8* presents the samples of fabric ornamentation with a border. From geometrical elements are created motifs of the patterns: cat's feet (or cudweed), windows, crosses, stars, harrows, oak leaves, clover leaves, apples, cucumbers, etc. and various combinations. Some of these motifs are presented in *Figure 9*, each of which has a symbolic meaning in archaic societies, for example, the cross is a symbol of the sun or fire and is related to light and life, and the star is connected with hope, dreams, and regeneration. Frequently the patterns are decorated with more or less regular circle motifs. Usually elliptic, quadrangle and circle figures are joined together by angles, additional joining elements or in other ways. The circle motif called *apple shaped* is presented in *Figures 6.a* and *8.b*.

The results of pattern repeats, i.e. the dimensions and their ratios in overshot fabrics are presented in *Tables 2* and *3*, respectively.

For instance, the fields of application of the textile articles and the ranges of dimensions of their pattern repeats are greatly connected. The following ranges for dimensions of pattern repeats in the fabrics were established: from 0 – 50 mm to 501 – 550 mm for bed spreads, and from 51 – 100 mm to 351 – 400 mm (in width direction) and from 0 – 50 mm to 201 – 250 mm (in height direction) for towels. Whereas table covers are distinguished by smaller dimensions of pattern repeats: 101 – 250 mm (width)

Table 2. Size of pattern and distribution in overshot fabrics.

Dimensions of pattern repeat, mm	Frequency, %							
	Bed spread		Towel		Table cover		Bed spread/ table cover	
	Width	Height	Width	Height	Width	Height	Width	Height
0 – 50	0.7	0.7	0.0	6.5	0.0	0.0	0.0	0.0
51 – 100	4.4	5.1	30.3	29.0	0.0	10.0	5.1	5.0
101 – 150	26.6	25.7	39.4	35.4	30.0	30.0	20.0	15.0
151 – 200	31.6	24.3	12.1	22.6	50.0	30.0	30.0	25.0
201 – 250	25.0	22.1	0.0	6.5	20.0	20.0	25.0	20.0
251 – 300	7.3	15.5	3.0	0.0	0.0	10.0	20.0	25.0
301 – 350	1.5	2.9	9.1	0.0	–	–	0.0	10.0
351 – 400	1.5	1.5	6.1	0.0	–	–	–	–
401 – 450	0.0	0.7	–	–	–	–	–	–
451 – 500	0.7	0.0	–	–	–	–	–	–
501 – 550	0.7	1.5	–	–	–	–	–	–

Table 3. Ratio of pattern repeat width to pattern repeat height in overshot fabrics.

Ratio of pattern repeat width to pattern repeat height	Frequency, %		
	Bed spread	Table cloth	Bed spread/ table cover
0.400 and less	0.7	0.0	5.0
0.401 – 0.600	0.7	0.0	5.0
0.601 – 0.800	9.0	0.0	5.0
0.801 – 1.000	53.4	60.0	65.0
1.001 – 1.200	28.6	30.0	15.0
1.201 – 1.400	5.3	10.0	0.0
1.401 – 1.600	0.0	0.0	0.0
1.601 – 1.800	0.0	0.0	0.0
1.801 – 2.000	0.0	0.0	5.0
2.001 and more	2.3	0.0	0.0

and 51 – 300 (height). Moreover a large amount, i.e. 31.6% for the dimensions of pattern repeats of 151 – 200 mm (width) and 25.7% of 101 – 150 mm (height), was established for bed spreads. A value of frequency of 35.4 – 39.4% for the dimensions of a pattern repeat of 101 – 150 mm was found investigating towels. It should be noted that for this kind of textile larger than 250 mm dimensions of the pattern repeat in the height was not found. Besides this, the analysis of overshot fabric measurements (width and length) showed that the sizes of the articles are different: (1001 – 1800) × (1501 – 2300) mm for bed spreads, (301 – 550) × (1401 – 2800) mm for towels, (601–1600) × (801 – 2500) mm for table covers, and (1201 – 1600) × (1901 – 2200) mm for bed spread/table covers.

The ratios of the pattern repeat width to the pattern repeat height showed that the range of 0.801 – 1.000 is the most frequent case for all fabrics investigated, i.e. 53.4% for bed spreads, 41.9% for towels, 60.0% for table cloths and even 65.0% for fabrics of double usage, i.e. bed spread/table covers. Additionally in Latvian folk costumes of the 19th and

20th centuries, the most conventional check pattern is square (71% in general), the rest being rectangular ones [10].

The borders and other decorations, the typical examples of which are shown in *Figures 7.b*, *8* and *10* (page 126), for overshot and pick-up articles are very important elements, especially for such items as bed spreads, towel, table covers, and horse and/body cloth.

The investigation of *dimai* article borders showed that a width of the border till 51 – 100 mm (in warp and weft directions) is mostly used for bed spreads, till 100 mm (at warp and weft directions) for towels, till 51 – 100 mm in the warp direction, and in the range of 151 – 200 mm in the weft direction for table covers. It was found that graphical forms of the borders very much resemble the central pattern of the fabric, adapting additional lines to it (*Figures 7.b* and *8*). Pick-up articles also usually have expressive ornamented borders. Moreover the margins of some articles, especially of towels in many cases, are decorated much more (*Figure 10*), for example, with tufts, braided trimmings or knitted lace.



Figure 10. Decoration of fabric's borders: a) [16] bed spread (overshot fabric) with tufts, wool/chemical/cotton; b) fragment of towel (pick-up fabric) with braided fringes, linen/cotton; c) fragment of table cover (overshot fabric) with knitted laces, linen/cotton.

Conclusions

The study of new sources of Lithuanian folk overshot and pick-up fabrics from private collections of rural masters or their families is submitted.

Typical overshot and pick-up fabrics are usually two-coloured. In this colour combination, ground yarns are generally achromatic white or black. Patterning weft yarns are mainly coloured red, brown, grey, yellow, blue and green. Monochromatic patterns of natural colours are very typical for table covers and towels, but not for bed spreads because such items are considered to be decorative textiles, and therefore are usually two-coloured or multi-coloured.

Combinations of two colours are found in 90.0% of overshot articles. Other combinations are rarely used, for instance, 3 – 4 colours – 5.2% & 5 – 6 colours – 2.9%. About 1.9% of fabrics had monochromatic colours. The same but with particularly coloured ornamentation makes a new original pattern. The combination of the same or different colours produces expressive variations of ornamentation. The repeats of the multi-coloured fabrics have more variations.

The repetition of the colours of overshot and pick-up fabrics from an historical perspective showed that analogous main colours are predominant in various periods, especially the colours of the Lithuanian national flag (yellow,

green and red). However, later woven overshot and pick-up textiles are mostly brightly coloured, exploring all shades of red, green, yellow, blue, and other colour combinations.

Mostly the values of the pattern repeat width were slightly diminished if compared with those of the repeat height. Hence the analysis of the ratio of the pattern repeat width to the pattern repeat height in overshot fabrics showed that the range of 0.801 – 1.000 is mostly used for all samples, and the frequencies were 53.4% for bed spreads, 41.9% for towels, 60.0% for table cloths and even 65.0% for fabric of double usage, i.e. bed spread &/table covers.

The sizes of borders depend on the usage of the woven article. For overshot and pick-up fabrics, there is a liking to apply decorations with additional elements such as tufts, tassel trimmings and knitted lace.

The material collected and analysis conducted presenting the disappearing cultural heritage will be the basis for further investigations of textiles as science, art, technology and crafts as well as cultural history, which will help to understand textile heritage as a valuable source of national originality and exclusivity.

Acknowledgement

This research was funded by a grant (No. MIP-090/2013) from the Research Council of Lithuania.

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Received 26.05.2017 Reviewed 31.03.2018