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Development of Apparel Using Blocks of Phulkari Pattern

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ABSTRACT
India is truly a land of wonders blessed with a myriad of cultures, customs and religions. These cultures have given us some of the best art and craft forms. One such craft is the Indian embroidery, every region in India has its own style of embroidery. A diverse yet distinct testimony of our rich cultural heritage is Phulkari of Punjab. Phulkari is considered as an important part of the trousseau in Punjab. Traditionally Phulkari embroidery were done by hand on a special type of coarser fabric known as 'khaddar' with untwisted silk floss called 'Pat', but due to some of the reasons like, time consumption & tedious process of manufacturing, usage of coarse fabric, lack of skilled labour, etc., it is not spreading & growing at a broader range. Hence in the present study an attempt was made to develop blocks of phulkari motif for printing of apparels like saree, dupatta, blouse & skirt. The motifs were collected from various sources like internet, books, etc. Selected motifs were developed into blocks by professional artists. The developed Phulkari motifs used for placement on the apparels by using Corel draw software for visual evaluation. All the developed placement of designs were coded & judged by a panel of 30 members. Four most preferred designs from each apparel are selected for final product development. Developed products were evaluated by same panel of members and ranked the product according to obtaining scores. All the developed products were highly accepted & appreciated in the evaluation.
Keywords: Phulkari embroidery, Corel draw, Block printing technique.

INTRODUCTION
India is famous for its different traditional handicrafts, which are a unique expression of art that beautifully keeps the age-old culture alive and maintains its exotic legacy and tradition. Traditional embroidery from every region has a flavor of its own. Some of the most important embroideries of India are Chikankari, Kantha, Phulkari Zardozi, Mirror work, Aari, Kashidakari, Kutch embroidery etc. Phulkari is a rural tradition of handmade embroidery, literally meaning "flower work", this traditional textile art was originally practiced solely by the women folk of Punjab to cater their personal demands. It has always played an important role in the lives of Punjabi girls. It was more like a precious personal gift meant for special family occasions be it to welcome a new-born into the family or to gift the daughter during her nuptial ceremony. Traditional Phulkari not only reflect the versatility, hard work and creativity of the rural women but it also represents the tradition and culture of Punjab. This embroidery is decorated with flowers, animals, fruits, human figures, huts, pots and scenes from daily life. Animal and birds showed success, beauty, pride and goodwill. Different fruits symbolized wealth, prosperity and fertility and colorful thread showed its vibrancy.
Phulkari specifically is made on a coarser cotton material known as "Khaddar", accomplished with a soft untwisted silk floss called 'Pat' but the because of the process of making phulkari embroidery is very tedious, time consuming, it required skilled labour and also the fabric used for making it are not feasible for all apparels. The mostly of the embroidery are very interesting and can be used on others

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form with modifications, for reintroduction of Phulkari, a new approach has to be used, with this aim the researcher, developed blocks of Phulkari motifs, as it can be executed in a short time, with precision, the motifs can be arranged, and replicated to produce beautiful decorated designs. Further; the blocks can be utilized for the production of various apparel, and can be stored for longer period of time.

2. MATERIALS AND METHODS

2.1 Collection of Phulkari Motifs: A collection of varied motifs of Phulkari from various sources like books, literatures, internet etc. was made.

2.2 Development of Phulkari Motifs The researcher sorted, selected and developed 12 motifs using Corel draw software from the previously collected embroidery patterns according to their suitability for developing blocks. These motifs were coded & go judged by a panel of 30 members including professors, teachers, scholars, students and staff members of Department of Family & Community Sciences, University of Allahabad. There preferences were taken on a 3-point scale as most preferred, preferred & low preferred. The W.M.S of each motif was calculated to give a rank. A total of 4 motifs were selected to create blocks for printing on fabric.

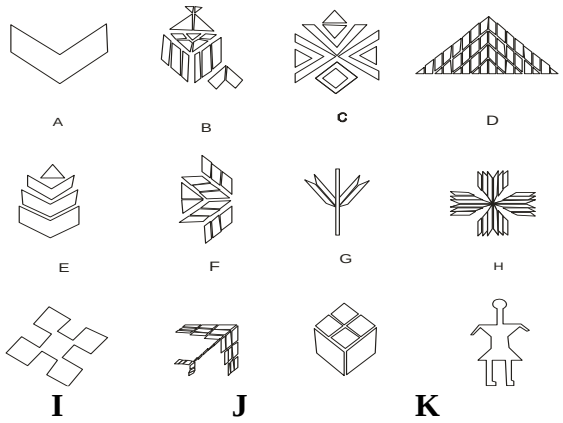
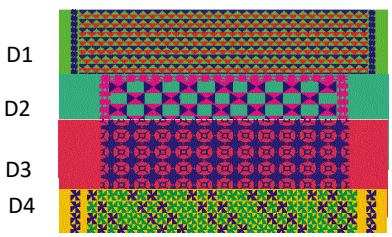


Figure. 1

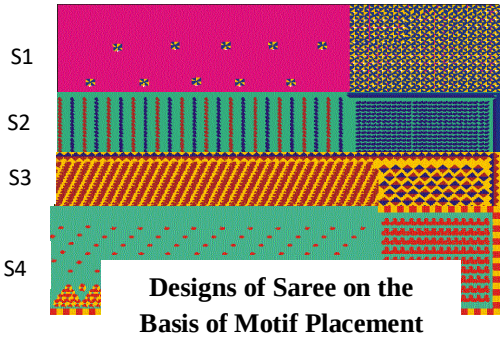
2.3 Development of Blocks: The selected motifs were converted into blocks, by professional artists in the market of Khojavan Varanasi, Uttar Pradesh.

Figure. 2

2.4 Designing of Product: The researcher selected women's clothing namely, saree, blouse, dupatta & skirt for block printing. Corel draw -12 software was used to create copy of designs for visual evaluation.



Designs of Dupatta on the Basis of Motif Placement



Designs of Saree on the Basis of Motif Placement

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Designs of Skirts on the Basis of Motif Placement

Figure. 3

2.5 Selection of Products: Four different designs of each product were created using Corel draw software. Each design was judged out by a panel of 30 members including staff members and students of Textile and Apparel designing, Department of Family & Community Sciences, University of Allahabad, Prayagraj, Uttar Pradesh. The evaluation was done on the following parameters, arrangement of motifs, appropriateness of design for particular product, color combinations & overall appearance. A five-point ranking performance scale was used for this purpose. The designs were scored as 5, 4,3,2,1 corresponding to excellent, very good, good, fair and poor respectively. The first ranked design in each category was then selected for final production.

2.6 Preparation of Material for Printing: The fabric was washed off properly for removing added dust, grease and any added materials. Then the washed fabric is dried & ironed for, removing shrinkage in the fabric. Then the fabric is set on to the printing table for printing process.

2.7 Preparation of Printing Paste: For preparation of printing paste first of all binder is taken out and mixed well with kerosene oil, then add color and mixed. After mixing the color, glycerin and fixer are added to the paste. This paste is then used for final printing process.

2.8 Printing: The researcher herself carried out the work of block printing in the textile laboratory, Department of Family & Community Sciences, University of Allahabad.

3. RESULTS AND DISCUSSION

3.1 Developed Motifs Using Corel draw: Total twelve design of Phulkari motifs were made using Corel draw software for development of blocks. These motifs were assessed by the panel of 30 members for selection of motifs. The designs are shown in Figure.1

The weighted mean scores as per preferences of members for motifs which are suitable for further development of blocks are illustrated in table 3.1 revealed that **'B'** with 2.60 W.M. S got 1st rank followed by **'D'** with 2.53 W.M. S got 2nd rank, '**F**' with 2.46 W.M. S got 3rd rank, '**J**' with 2.26 got 4th rank. The top four motifs were selected for further development of blocks.

Table 3.1-Preferences for Selection of Motifs

N=30

Motif	Frequency		W.M. S	Rank
	Most Preferred	Preferred	Designs of Blouse on the Basis of Motif Placement	
A	12	10		
B	**19**	**10**	**1**	**2.60***	**I**
C	10	15	5	2.16**	IX
D	**18**	**10**	**2**	**2.53***	**II**
E	10	14	6	2.13**	X
F	**17**	**10**	**4**	**2.46***	**III**
G	11	15	4	2.23**	V
H	13	11	6	2.23**	VI

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I	10	12	8	2.06**	XII
J	**14**	**10**	**6**	**2.26****	**IV**
K	13	10	7	2.20**	VII
L	13	10	7	2.20**	VIII

Suitability level as in the following ranges: Most Preferred (MP):2.34-3.00***, Preferred (P):1.67-2.33**, Low Preferred (LP) .00-1.66*

Table 3.2 Preferences for Selection of Saree on the Basis of Motif Placement

Design Number	Arrangement of motifs	Appropriateness of design for particular product	Color combination	Overall appearance	Total
S 1	3.8	3.7	3.7	3.9	15.1
S 2	4	4.1	4.1	4	16.2
S 3	**4.2**	**4.2**	**4.1**	**4.2**	**16.7***
S 4	3.7	3.6	3.7	3.6	14.6

***Highest score**

The weighted mean scores as per preferences of members, presented in table 3.2 revealed that S3 with 16.7* got highest mean score

Table 3.3 Preferences for Selection of Dupatta on the Basis of Motif Placement

Design Number	Arrangement of motifs	Appropriateness of design for particular product	Color combination	Overall appearance	Total
D 1	3.6	3.9	3.8	3.5	14.8
D 2	4.3	4.2	3.9	3.8	16.2
D 3	3.7	3.6	3.5	3.6	14.4
D 4	**4**	**4.6**	**4.8**	**4.8**	**18.2***

***Highest score**

The weighted mean scores as per preferences of members, presented in table 3.3 revealed that D4 with 18.2* got highest mean score.

Table 3.4 Preferences for Selection of Blouse on the Basis of Motif Placement

Design Number	Arrangement of motifs	Appropriateness of design for particular product	Color combination	Overall appearance	Total
B 1	3.9	3.8	4.0	4.2	15.9
B 2	**4.6**	**4.8**	**4.7**	**4.9**	**19.0***
B 3	3.9	4.1	4.3	4.2	16.5
B4	3.7	3.6	3.8	3.7	14.8

***Highest score**

The weighted mean scores as per preferences of members, presented in table 3.4 revealed that B2 with 19.0* got highest mean score.

Table 3.5 Preferences for selection of Skirt on the basis of motif placement

Design Number	Arrangement of motifs	Appropriateness of design for particular product	Color combination	Overall appearance	Total

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Sk1	4.2	3.9	4.1	4.2	16.4
Sk2	**4.6**	**3.9**	**4**	**4.8**	**17.3***
Sk3	3.9	4.1	4.3	4.2	16.5
Sk4	3.7	3.6	3.8	3.7	14.8

***Highest score**

The weighted mean scores as per preferences of members, presented in table 3.5 revealed that SK2 with 17.3* got highest mean score.

3.2 Cost Calculation of the Prepared Product: The cost of each product was calculated on the basis of raw material used, charges for making of block, colors, chemical charges, laboratory charge and stitching charges. 25 per-cents a profit margin was added to the actual cost to get the sale price of the products.

Table - 3.6 Cost of Block Printed Saree(S3)

Item	**Saree**		
	Consumption	Rate (Rs.)	Value (Rs)
Cut length of fabric	5.5 meter	70/meter	385/-
Cost of blocks	2	100/piece	200/-
Colors	50ml/maroon	25/50ml	30/-
	10ml/blue	5/10ml	
Binder	500gm	120/kg	60/-
Chemicals	-	50	50/-
Labour cost	-	200	200/-
Miscellaneous	-	60	60/-
Actual cost	-		985/-
25% profit			246.25/-
Sale price			**1231.25/-**

Table- 3.7 Cost of Block Printed Dupatta (D4)

Item	**Dupatta**		
	Consumption	Rate (Rs.)	Value (Rs)
Cut length of fabric	2.5meter	50/meter	125/-
Colors	15ml/green 10ml/violet	5/15ml 5/10ml	10/-
Binder	250gm	120/kg	30/-
Chemicals		20	20/-
Miscellaneous		20	20/-
Labour cost		100	100/-
Actual cost			305/-
25%profit			76.25/-
Sale price			**381.25/-**

The final rate of S3 is **Rs. 1232/-**

The final rate of D4 is **Rs. 382/-**

Table - 3.8 Cost of Block Printed Blouse(B2)

Item	**Blouse**		
	Consumption	Rate (Rs.)	Value (Rs)
Cut length of fabric	80cm	100/meter	80/-
Colors	10ml/violet 10ml/maroon	5/10ml 5/10ml	10/-
Binder	150gm	120/kg	18/-
Chemicals		20	20/-
Miscellaneous		20	20/-
Labour cost		50	50/-
Stitching cost		100	100/-
Actual cost			298/-
25% profit			74.5/-
Sale price			**372.5/-**

Table- 3.9 Cost of Block Printed Skirt (SK2)

Item	Skirt		
	Consumption	Rate (Rs.)	Value (Rs.)
Cut length of fabric	3meter	70/meter	210/-
Colors	15ml/blue	5/15ml	5/-
Binder	100gm	120/kg	12/-
Chemicals		30	30/-
Miscellaneous		50	50/-
Labour cost		50	50/-
Stitching cost		150	150/-
Actual cost			507/-
25%profit			126.75/-
Sale price			**633.75/-**

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The final rate of B2 is **Rs. 373/-** The final rate of SK2 is **Rs. 634/-**

Final Product

Figure.4

3.3 Statistical Analysis for Acceptability of Developed Product: The acceptance of the product was analyzed using weighted mean score (W.M.S). The weighted mean score was calculated from the scores given by the judges. Finally, W.M.S was analyzed for the acceptance level in the following range;

$$W.M.S = \frac{No\ of\ respondent\ (MP)\ x3 + No\ of\ respondent\ (P)\ x2 + No\ of\ respondent\ (LP)\ x1}{Total\ no\ of\ respondent}$$

Most preferred (MP)-2.34-3.00***, Preferred (P)-1.6-2.3**, Low preferred (LP)-0.6-1.66*.

Table 3.10-Preferences for Acceptability of New Developed Product

N=30

Product	Frequency			W.M. S	Rank
	Most Preferred	Preferred	Low Preferred		
D4	18	12	0	2.60***	I
S3	17	12	1	2.53***	II
B2	18	8	4	2.46***	III
SK2	12	17	1	2.36***	IV

Suitability level as in the following ranges: Most Preferred (MP):2.34-3.00***, Preferred (P):1.67-2.33**, Low Preferred (LP) .00-1.66*

The weighted mean scores as per preferences of members are presented in table 3.10 revealed that D4 with 2.60 W.M. S got Ist rank followed by S3 with 2.53 W.M. S got IInd rank, B2 with 2.46 W.M. S got IIIrd rank, SK2 with 2.36 W.M. S got IVth rank. All the products were found mostly preferred.

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CONCLUSION

The Phulkari motifs were successfully developed into blocks and designing the apparel articles using block printing method of Phulkari pattern were highly appreciated and well accepted with regards to visual evaluation. The blocks can be used for other products and preserve for longer time period.

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