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Original Research Article

Aipan: An Inspiring Folkart for Textile Designing

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A B S T R A C T

India, the land of rich cultural heritage, has been known to the world for its vibrant arts and crafts since ancient time. Floor paintings are one of these art forms which are ritualistic part of ancient Indian culture. *Aipan* is one of the traditional folk arts of *Kumaun* region of Uttarakhand drawn on the floor, walls, etc. in the house. In the present study, *aipan* designs were explored for the designing of woven borders. Ten *aipan* designs (5 symmetrical and 5 asymmetrical in form) were selected from secondary sources and adapted to make them suitable for use in weaving. Taking each design, four different border arrangements were developed using computer software Corel Draw X7. The prepared border arrangements were assessed by a panel of 30 judges. The selected borders were converted into graphic form establish their suitability for use in weaving using extra yarn figuring technique. This effort was also an attempt to preserve the ancient and valuable art of the state in form of tangible textile base.

Introduction

Indian art history has rich store of traditional arts and folk paintings from ancient times to present times. Hand spun and hand woven textiles are the oldest arts originated in India and evidences revealed the existence of finely woven and madder dyed textiles found at Mohenjo-Daro of Indus valley civilization (Gillow and Barnard, 1991). These arts and crafts reflect rich heritage of India through beautiful designs inspired from monuments, religion, nature, etc. Indian arts and crafts had attracted not only the people of India since ancient times but also have a huge global demand in present times (Kumari, 2013).

Various crafts have been used to develop designs suitable for textile applications.

Aipan is a folk art of *Kumaun* region of Uttarakhand which is related to Hindu myths and rituals. It is the art for floor decoration which has sustained till date because of its religious, social and cultural significance (Sah, 2005). The *aipan* designs are inspired from the geometric patterns, natural figures of real objects, symbolic designs referring to God and goddesses, etc. It is drawn in front courtyard, entry points at doors, walls, papers and at places of worship. This art form has been explored by different researchers for development of design suitable for textile

designing through weaving (Sangama and Rani, 2012; Kumari, 2013 and Arya *et al.,* 2017), tie and dye (Negi *et al.,* 2017), screen printing (Arya *et al.,* 2012 and Arya *et al.,* 2011), embroidery (Singh *et al.,* 2013), and appliqué (Negi *et al.,* 2015 and Negi and Rani, 2016).

Borders are used as effective trim in garments as well as home textiles. These borders are embellished with embroidery, sequins, beads, printing, etc. Use of border can make a plain fabric stylish and attractive to the consumer. Borders are possibly the oldest method of embellishment. *Rig veda* also reveals the use of shining gold wraps and fabrics with pearl woven borders (Bhatnagar, 2005). Designing of the borders suitable for technique of weaving would be an innovative approach towards value addition of existing products with *aipan* designs at one end and on other hand woven borders would diversify product range being available in the state. The woven borders would add variety to the existing borders designs in the market. These types of borders would attract the consumers who have inclination towards traditional folk art. Thus this attempt would help to preserve the heritage of the state.

Materials and Methods

The aim of the study was to create a design pool, by the adaption of *Aipan* designs of *Kumaun* region for development woven border using extra yarn figuring technique of weaving.

Collection and selection of *aipan* designs

Different secondary sources like books, cards, sticker, and internet images, etc. were explored to collect thirty distinct and decorative designs from famous folk art form i.e., *Aipan* of Utttarakhand. From the collected designs, ten designs were selected

which were found representative to culture of *Kumaun* region of Uttarakhand.

Adaptation of *aipan* designs

These selected ten designs were adapted individually to make them suitable for incorporation into textile structure through weaving. The adaptation of selected designs was done through use of Corel Draw X7 software.

The adaptation process involved use tools present in edit menu of the software. The select tool, bezier tool, shape tool, etc. were used to alter the lines of the design to make it suitable for weaving. From these ten designs five were symmetrical and five were asymmetrical in from.

Development of border arrangements and their selection

The method given by Gahlot and Naik (2014) was used to prepare border arrangements using ten adapted designs. The border arrangements were prepared with arrangements depicted by notations viz., P_{111}, P_{112}, P_{1a1} and P_{1m1} for symmetrical designs while the asymmetrical designs were placed in border arrangements designated by notations namely, P_{111}, P_{m11}, P_{112}, and P_{1a1} (Table 1).

These border arrangements were prepared with the help of Corel DRAW X7 software using the required actions. The prepared border arrangements were evaluated by a panel of thirty judges including faculty members, M.Sc. and Ph.D. students from Department of Clothing and Textiles and Department of Family Resource Management, College of Home Science, G. B. P. U. A. & T., Pantnagar. The judges assigned ranks to the border arrangements on the basis of their overall appearance. The most preferred

arrangement was given rank I was used for developing colour combinations in each border type (as per notations).

Development of colour combination for selected border arrangements and their selection

The selected border arrangements were replicated using two colour schemes namely monochromatic colour scheme (primary colours – red, blue and yellow) and complementary colour scheme (red-green, blue-orange and yellow-violet). Six colour combinations were made for 10 selected border arrangements using complementary colours i.e., total sixty colour combinations were prepared for selected border arrangements. The selected border arrangements in different colour combinations were evaluated by the same panel of judges. The judges evaluated each colour combination used in borders on five point rating scale on the basis of overall appearance and finally one colour scheme was selected for each design.

Results and Discussion

Aipan Designs and their description

Total 10 designs were selected from 30 collected *aipan* designs on the basis of their significance in day to day life; on basis of their representation of *Kumauni* culture and their suitability for weaving technique. The 10 selected designs were classified into symmetrical and asymmetrical designs and were adapted using computer software Corel DRAW X7.

The 5 symmetrical *aipan* designs were *laxmi pau*, *ghanti*, *phani*, *nata* and *bada himanchal*. These designs had symmetry on either side of vertical centre line. While *ghiroli* 1, *ghiroli* 2, *sua*, *shankhi* and *chameli patia* were

asymmetrical *aipan* designs as these were not symmetric. The selected and adapted designs are given in Table 2.

The description of the 10 selected *aipan* designs is as follows:

Laxmipau

This *aipan* design has been enthused from the footprint of the Goddess *Laxmi*. This is a stylised design and is used in both the styles of floor paintings i.e., creeper and worshiping seat. On Diwali festival, this motif is essentially drawn at the main entrance of the house and at different places in *Mahalaxmi chowki.*

Ghanti

This is a stylised design which has been derived from the bell (*ghanti*) used during prayers in Hindu temples and in other cultural rituals or *pooja*. *Ghanti* motif is drawn in floors as well as on the paper. It is essentially drawn in *Surya chowki* as *asan* used for the worshipping of Sun God during *naamkaran* ceremony of newborn and in the *Khodas chowki* over the ceremonial cloth like *pichora*.

Phani

This is the stylised version of snake's hood and it symbolises the Lord Shiva. This design is found drawn on the paper or cloth in the form of creeper which is used during worship on Nag Panchami.

Nata

This is a figurative style of aipan which is drawn on the walls of the dining room which is considered as temple in household where the basic need of life i.e., food is fed to the people. The figures used in nata represent the

Goddess of wealth, Laxmi and God of wellbeing and protection, Narayan. This geometric design is widely drawn on the walls of dining room on Diwali festival.

Bara Himanchal

This is a stylised design used in aipan and has been derived from the highest snow covered region of Himalaya. It symbolizes a metallic pitcher used in household of Kumaun region to store water.This design is drawn in both the styles of floor painting i.e., creepers as well as worshiping seats. This design is essentially drawn in Maatrika Chowki during all auspicious events and worshipping of Gods.

Ghiroli

This design has been enthused from a small sized reptile having 4 legs locally known as ghiroli. This is a stylised design which is drawn in creepers and chowkies (Saraswati chowki, Mahalaxmi chowki, Dhuliargha chowki, etc.) used during pujas and festivals. Two types of ghiroli designs i.e. ghiroli 1 and ghiroli 2 were selected in this study.

Sua

This is a stylised design is inspired from parrot which is locally known as sua in Kumaun region. This design is associated with the arrival of beloved ones and hence is drawn on the floor in form of creeper as well as chowki during festivals and religious occasion. It is essentially drawn in Vivah chowki.

Shankhi

This stylized design has its origin from the counch shell which is associated with the creation of first sound, Om. It is also considered a symbol of purity and auspiciousness. This is drawn on the

chowkies as well on the paper and cloth. It is essentially drawn in the Khodas chowki used on ceremonial veil, pichhora worn by women during all religious events and in Surya chowki drawn on wood used during naamkaran ceremony of newborn.

Chameli patia

This is stylised design inspired from the jasmine flower which symbolises the purity. It is used in both styles of floor paintings (creepers and chowkies). This design is commonly drawn in Saraswati chowki during worship and Dhuli Argha chowki during marriage ceremony.

Selected border arrangements

One border arrangement of each adapted aipan design was selected on the basis of response for overall appearance. The weighted mean scores (WMS) of each border arrangement is given in Table 3. The value of WMS for all the arrangements was found above half the value of highest possible WMS i.e., 4.00 which represents good level of acceptability of the designs among panel members.

The selected border arrangements were replicated in planned colour schemes and were evaluated again by 30 judges to select one border arrangement in colour.

The selected colour schemes for each design are given in the Table 4. The value of WMS for all the arrangements represents good level of acceptability of the designs among panel members.

These selected border arrangements in different colour schemes can be woven by using extra yarn figuring technique of weaving with background in any basic weave like plain weave, twill, satin and their

variation using graphs of design. Various techniques of figuring like floating, interlacement etc. can be utilised for the weaving.

Table.1 Description of border arrangements possible with single design

Sl. No.	Notation of border	Description of border arrangements	Design geometry used in border arrangement
1.	P_{111}	**Translation left alone**: Border arrangement having no vertical reflection, no horizontal reflection and no rotation only translation of designs	Translation (repetition)
2.	P_{m11}	**Mirror galore**: Border arrangement having vertical reflection only no horizontal reflection, no glide reflection and no rotation	Vertical reflection
3.	P_{112}	**Flip over**: Border arrangement having rotation of designs, no vertical reflection, no horizontal reflection and no glide reflection.	Rotation
4.	P_{1a1}	**Footsteps**: Border arrangement with glide reflection of designs and no rotation, no horizontal reflection, no vertical reflection.	Glide reflection
5.	P_{1m1}	**Only one mirror**: Border arrangement having horizontal reflection and no vertical reflection, no glide reflection, no rotation	Horizontal reflection

Table.2 Selected and adapted *aipan* designs

Design No.	Name of design	Type of design	Selected design	Adapted design
1.	*Laxmi Pau*	SYMMETRICAL DESIGNS		
2.	*Ghanti*			
3.	*Phani*			
4.	*Nata*			
5.	*Bara Himanchal*			
6.	*Ghiroli*1	ASYMMETRICAL DESIGNS		
7.	*Ghiroli*2			
8.	*Sua*			
9.	*Shankhi*			
10.	*Chameli patia*			
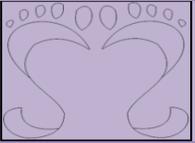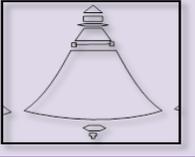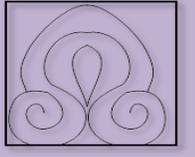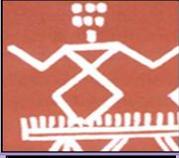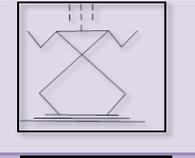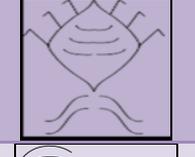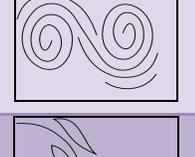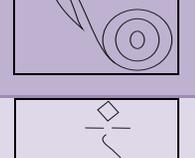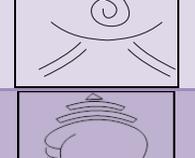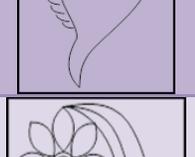
Table.3 The weighted mean scores of each border arrangement n=30

Type of design	Design No.	Border Arrangements	Weighted Mean Score	Type of design	Design No.	Border Arrangements	Weighted Mean Score
SYMMETRICAL DESIGNS	1	P_{111}	2.13	ASYMMETRICAL DESIGNS	6	P_{111}	2.63
		P_{112}	2.26			P_{m11}*	2.93
		P_{1a1}	2.03			P_{112}	2.50
		P_{1m1}*	2.90			P_{1a1}	2.16
	2	P_{111}	2.50		7	P_{111}*	2.73
		P_{112}	2.56			P_{m11}	2.70
		P_{1a1}*	2.83			P_{112}	2.60
		P_{1m1}	2.26			P_{1a1}	2.10
	3	P_{111}	2.16		8	P_{111}	2.50
		P_{112}	2.16			P_{m11}*	2.96
		P_{1a1}	2.76			P_{112}	2.00
		P_{1m1}*	3.03			P_{1a1}	2.70
	4	P_{111}	2.40		9	P_{111}	2.00
		P_{112}	2.26			P_{m11}*	2.90
		P_{1a1}*	2.80			P_{112}	2.83
		P_{1m1}	2.56			P_{1a1}	2.23
	5	P_{111}	2.23		10	P_{111}*	2.53
		P_{112}	2.06			P_{m11}	2.50
		P_{1a1}	2.53			P_{112}	2.50
		P_{1m1}*	3.06			P_{1a1}	2.43

*Selected arrangements

**Table.4** Weighted mean scores for selected border arrangements in different colour schemes
n=30

| Design No.	Border arrangements	Weighted Mean Score	Colour scheme selected	Coloured Border arrangement
1.	P_{1m1}	4.10	Complementry Colours (red-green)	
2.	P_{1a1}	4.16	Complementry Colours (red-green)	
3.	P_{1m1}	4.03	Complementry Colours (red-green)	
4.	P_{1a1}	4.40	Complementry Colours (red-green)	
5.	P_{1m1}	4.10	Monochromatic colour (blue)	
6.	P_{m11}	4.16	Complementry Colours (blue-orange	
7.	P_{111}	4.20	Complementry Colours (blue-orange)	
8.	P_{m11}	4.33	Monochromatic colour (red)	
9.	P_{m11}	4.00	Complementry Colours (blue-orange)	
10.	P_{111}	3.93	Monochromatic colour (red)	
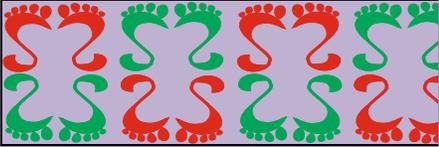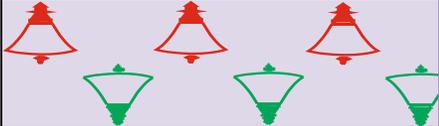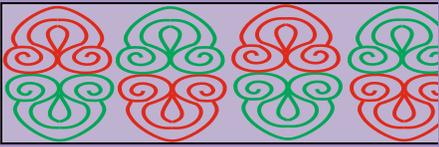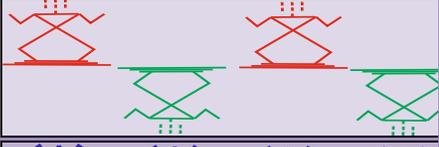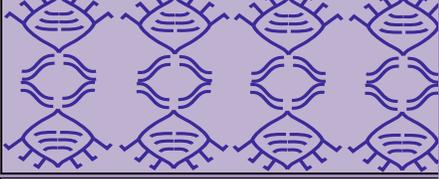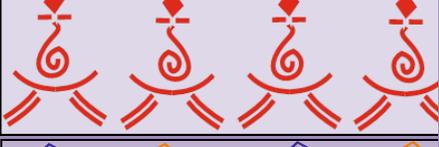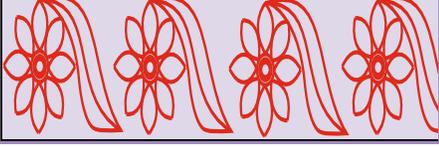
Table.5 Graphical representations of the *aipan* designs

Design no.	Type of design	Graphical representation	Design no.	Type of design	Graphical representation
1			6		
2			7		
3	SYMMETRICAL DESIGNS		8	ASYMMETRICAL DESIGNS	
4			9		
5			10		
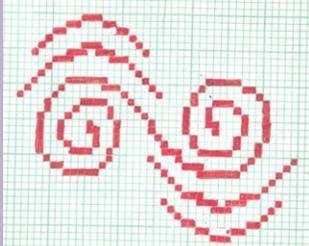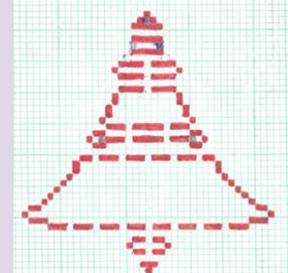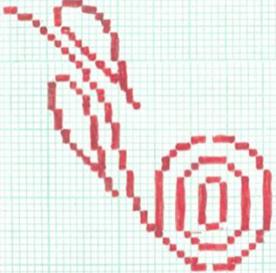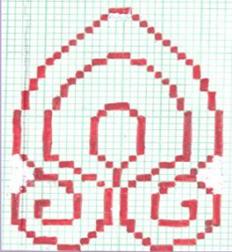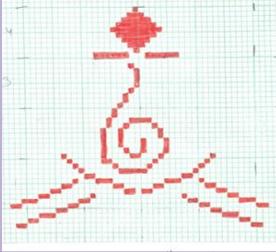
Graphical representation of *aipan* designs

The graphical representation of the *aipan* designs reveals the possibility of weaving border through both simple hand loom as well as jacquard loom in cotton, wool and silk yarn for application on handloom and handicraft textile products prevalent among artisans

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based in state. Table 5 shows the graphical representations of the *aipan* designs.

In conclusion, *Aipan* designs are used to decorate the floor, walls etc. of the houses in Kumaun region of Uttarakhand. Each *aipan* has its social religious and cultural significance. *Aipan* designs can be adapted easily for their application in development of border arrangements. Corel Draw X7 software enabled adaptation of selected *aipan* designs, application of adapted designs into border arrangements and replication of border arrangements in different colour schemes through use of tools present in its menus. It made the tasks easier as well as less time consuming. The selected border arrangements can be woven in any basic weave using graph forms of the adapted design by extra yarn figuring technique of weaving.

The woven borders can be further applied in apparel and accessory articles as yoke, panel or borders at the hemlines. Thus the attempt on adoption among rural artisans could create a new range of products having *aipan* designs that would be step towards preserving the folk art of state.

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