

## Adaptation of Katarmal Sun Temple Motifs on Textile Product

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### Abstract

India is known as a land of temples where thousands of temples are dedicated to various Gods and Goddesses. Hindu temples are large and magnificent with a rich history. The architecture of Hindu temples evolved over a period of more than 2,000 years with a great variety. Hindu temples are of different shapes and sizes with different types of domes and gates. The Vedic scriptures of the Hindu religion refer the Sun as the store house of infinite power and radiance. The origin of the worship of the Sun in India is several centuries old. The Sun Temple of Katarmal popularly known as '*Bara-aditya*' is one of the biggest and tallest temples of the Kumaun region of Uttarakhand. This temple faces east and built during 9<sup>th</sup> century by Katarmal. Katarmal was the medieval king of Katyuri Dynasty who rules the central Himalayan region. Katarmal Sun Temple is decorated with beautiful designs. An attempt was made to explore the Katarmal Sun Temple motifs on textile products. Different motifs were selected from Katarmal Sun Temple which were adapted using computer aided designing. Use of adapted motifs from Katarmal Sun Temple in the development of design arrangement for textile products was appreciated by the judges. Therefore, the purpose of this paper is to make people aware about the traditional heritage of Uttarakhand so that people give priority to their cultural heritage and take measures to preserve it.

**Key Words-** Motif, Katarmal Sun Temple, computer aided designing

### 1. INTRODUCTION

Hindu Temple architecture evolved over the centuries from simple rock cut cave shrines to massive and ornate temples which spread across the Indian sub-continent and beyond, forming a canonical style. Essential elements of the style are precise and harmonious geometry when viewed from all four sides and above, the square form and grid ground plans, soaring towers and elaborate decorative sculptures which includes gods, worshippers, erotic

scenes, animals, floral and geometric patterns.

Indian temple architecture is known for its highly decorative style. Their exteriors are often covered by multitude of carved imagery, sculptured images of deities, narrative reliefs from the mythology and rich decorative carvings. The exteriors are generally more highly decorated than the interiors. The interiors are usually quite plain.

The Vedic scriptures of the Hindu religion refer the Sun as the store house of

infinite power and radiance. The origin of the worship of the Sun in India is several centuries old. There are several temples enshrining the Sun God as the principle deity. Some of the ancient Sun temples were destroyed by the Islamic invasions. But some other sun temples in India are still intact and popular among people with their magnificent architecture and religious importance.

Katarmal, an 800 year old Sun temple, situated around 17 kms northwest of Almora, is the second in importance after the Sun Temple of Konark in Orissa. Katarmalla, a Katyuri king constructed this temple which has 44 smaller temples around the main deity of Surya, which called as *Bara Aditya*- the God Surya. The image or statue of Surya in the temple dates back to 12<sup>th</sup> century. It is a monument of national importance and noted for its magnificent carved pillars and wooden doors. In the present study an attempt was made to adopt motifs of Katarmal Sun Temple to promote the traditional motifs into textile market by introducing new designs. In the present study, bag was selected as the textile product on the basis of its utility and fashion use. This will also help in promoting the cultural heritage and take measures to preserve it.

## **2. METHODOLOGY**

### **2.1 Adaptation of motifs**

Ten motifs of Katarmal Sun Temple were selected from primary sources for the present investigation. Among these ten motifs, five motifs were border motifs and five motifs were buti motifs. Selected motifs were adapted using Computer Aided Designing.

### **2.2 Development of design arrangements**

Ten design arrangements were developed for bag. These prepared design arrangements were evaluated by a panel of thirty judges according to their overall appearance. The judges were asked to rank design arrangements from I to X according to their order of preferences assigning rank I for most liked arrangement and X for the least liked arrangement.

### **2.3 Development of designs using selected adapted motifs in selected design arrangement**

After selection of one design arrangement for bag, each border motif was placed individually with each buti motif on the selected design arrangement. Ten motifs were used for developing designs for bag. Twenty-five different designs for bag were developed by using adapted motifs in selected design arrangement. A panel of thirty judges were asked to evaluate the design on a five point rating scale (i.e., 5 marks for excellent, 4 marks for very good, 3 marks for good, 2 marks for fair and 1 marks for poor) based on their overall appearance.

### **2.4 Development of colour combinations**

Six different colour combinations using four colours viz., black, red, blue and yellow were developed for bag. These colour combinations were evaluated by a thirty judges according to their overall appearance and rank was given to them from I to VI according to their order of preferences. Rank I was for most liked colour combination and VI for the least liked colour combination.

### **2.5 Assessment of designed bag**

Designed bag was evaluated with the help of thirty judges on various parameters like appropriateness of motifs according to the product, placement of motifs, colour

combination and overall appearance. The judges were asked to evaluate various parameters of bag on a five point rating scale.

### 3. RESULTS AND DISCUSSION

Figure 1 illustrates ten adapted motifs of Katarmal Sun Temple among which five motifs were each of border and buti.

Figure 1: Adapted motifs



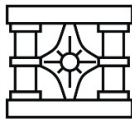








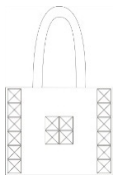

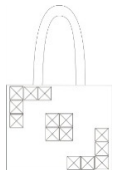

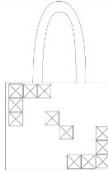
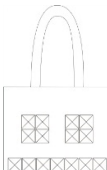
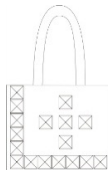
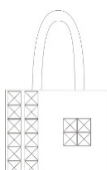

S. No.	Adapted border motif	S. No.	Adapted border motif	S. No.	Adapted buti motif	S. No.	Adapted buti motif
1.		4.		1.		4.	
2.		5.		2.		5.	
3.				3.			

Table 1 shows image of different design arrangements for bag along with their weighted mean score (WMS). It is clear from Table 1 that design arrangement-B for bag secured highest WMS of 7.9.

Table 1: Preference of design arrangement for bag

Design	WMS	Design of bag	Design	WMS	Design of bag
A	6.2		F	4.2	
B	7.9*		G	6.0	

C	7.2		H	6.0	
D	5.5		I	6.2	
E	7.5		J	7.0	

\*Selected design arrangement

Arrangement of different motifs on selected design arrangement is given in Table 2 along with score for selection motif along with design arrangement. It is clear from the Table 2 that design-G for bag (4.23) got highest weighted mean score. Therefore, this design was selected for the bag.

**Table 2:** Scores obtained by designs for selected products










Design	WMS ( $\mu$ )	Rank	Design	WMS ( $\mu$ )	Rank
A	3.1	X	N	2.2	XXIV
B	3.7	VII	O	2.4	XVIII
C	3.0	XIII	P	2.3	XX
D	2.2	XXIII	Q	2.3	XXI
E	2.3	XIX	R	2.2	XXV
F	3.0	XIV	S	2.9	XV
G	4.2	I*	T	3.8	V
H	4.1	II	U	3.8	VI
I	3.8	IV	V	3.1	XI
J	3.7	VIII	W	3.1	XII

<b>K</b>	2.6	XVI	<b>X</b>	3.2	IX
<b>L</b>	3.9	III	<b>Y</b>	2.3	XXII
<b>M</b>	2.6	XVII			

\*Selected design

Table 3 gives information regarding colour combination used for motif and their arrangement along with their weighted mean score. It is clear from the Table 3 that colour combination-B for buti scored highest weighted mean score of 2.5 and colour combination-A for border got highest weighted mean score(5.5). Hence, these colour combinations of buti and border motifs were selected for designing the bag.

**Table 3:** Scores obtained by color combination

<b>Design</b>	<b>Score of buti</b>	<b>Design of buti</b>	<b>Score of border</b>	<b>Design of border</b>
A	1.5		5.5*	
B	2.5*		3.8	
C	2.3		3.9	
D			2.2	
E			3.4	
F			4.3	

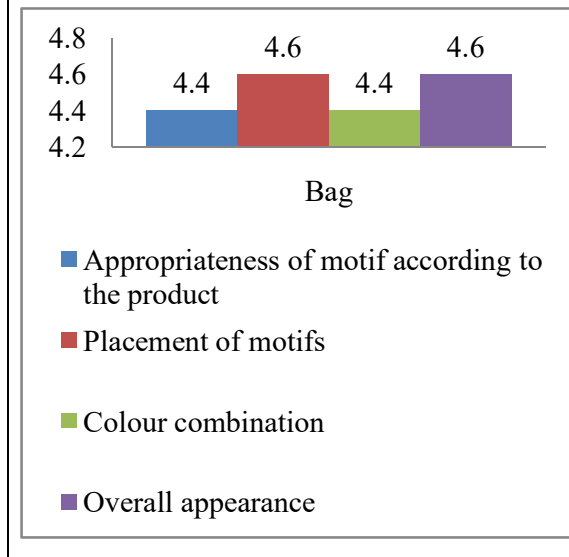
\*Selected color combination

Figure 2 shows the designed bag according to selected design and colour combination. Figure 3 gives information regarding evaluation of designed bag. It is clear from the figure that parameters like placement of motif and overall appearance for bag got highest WMS (4.7) followed by appropriateness of motif according to the product and colour combination which got 4.4 WMS for bag.

Figure 2: Designed bag



Figure 3: Scores obtained by designed bag



#### 4. CONCLUSION

Katarmal sun temple is decorated with beautiful designs. This study was an effort to explore the Katarmal sun temple motifs on textile products. It can be concluded that adaptation of motifs from Katarmal sun temple of Uttarakhand is possible. Use of adapted motifs from Katarmal sun temple in the development of design arrangement for textile product was

appreciated by judges. The study also revealed that there is a huge possibility to apply Katarmal sun temple motifs on the textile surface for its value addition. This will enhance the value in textile items which are having a greater demand in the fashion market as customer needs variety and change. This study is absolutely a new approach in the field of textile designing with the aim of presenting Katarmal sun temple motifs for textile designing.

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