



Use of CAD for Furnishing Design using Sculptures of Sahastrabahu Temple

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Abstract-Indian has a rich array of monuments belonging to different periods of history, with motifs of respective periods. Owing to different causes, these structures are weakened, in order to preserve the motifs of monuments. The present study was planned with an objective to collect the sculptures Sahastrabahu Temple and apply them on cushion cover to preserve the motifs and for new designs in furnishing. The motifs were collected from the temple and were used for furnishing design using Corel Draw software. Collected designs comprised of floral and geometrical pattern, motifs of lord *Vishnu* and *Shiva*. These were used for designing on cushion cover using Computer aided designing. The designed products were evaluated by a panel of members. The panel members appreciated the motifs selected for designing and also had an opinion that if such products are available in the market, they was purchase them. The judges also suggested that such products can also be sold at the historical places as tourist visit and can purchase them as the souvenir of that place.

Introduction

Monuments are buildings, statues and other structures which are of historical importance. Monuments include residence of ruler like fort, palaces and garden. It also includes public structure like temple, mosque, bazaar etc. The monuments of India had become an inspiration for the future generations with respect to construction technology and designing used.

Sahastrabahu temple is one of the most amazing temples located in Nagda village of Udaipur district. It is commonly known as the Saas-Bahu temple. Sahastrabahu temple is a unique symbol of the harmonious relationship of Saas (mother-in-law) and Bahu (daughter-in-law). The temple structure is proof of the sacred nature of family bonds during ancient times. The uniqueness of motifs and designs of Sculptures present on Sahastrabahu temple have lavishly carved at the



interiors and parts of exterior, especially around the porches, intricate carving on walls and ceilings, beautiful monuments of lord Shiva and Vishnuthat showed intimate feeling of love and worship.

In order to preserve these motif/designs for future generation documentation of designs is very important. The documented designs can be use as alibrary of designs and this library can be a source of inspiration to the designers/artisans. Researcher can select the motifs for designing textile by constructional techniques or by surface enrichment technique. Development of designs using computer aided designing saves the time and labour involved in manual work of designing as it is faster.

Present study was undertaken with the objectives of documentation of design from sculpture of Sahastrabahu Temple and to develop cushion cover using computer aided design and hand painting

2. Material and methods

Collection of motif-Various beautiful motifs and designs were carved on the pillars, interior and exterior walls ceilings, domes of Sahastrabahu Temple but owing on the numerous invasions and the effect of time, some portion of this temple are ruined. Sculptures were critically analyzed by the researcher for the selection of suitable motifs for cushion cover. Sixty best, well maintained and preserved motifs and designs were collected by the researcher for the present investigation.

Documentation of motif on computer using corel draw and development of designs from sculpture of temple-Total 60 selected Motif and design obtained from sculptures was designed and developed through software On the basis of relative ranking by the experts, top scored 30 designs was selected from 60 motifs and designs. Among 30 designs, 20 placements were further designed and developed for development of cushion cover. Top scored 5 placement designs were used for the preparation of innovative value added cushion cover based on the rating of panel members.

Development of products- Selected 5 placements of motifs and their design combinations were applied on fabric by hand painting techniques using acrylic colour in laboratory and 5 designs of Cushion cover prepared.



3.Result and discussion

3.1 : **Selection of design** Sixty developed designs comprised of floral and geometrical pattern, motifs of lord *Vishnu* and *Shiva* were arranged in line from motif code no. 1 to 60 and then presented before 20 panel members for evaluation of their suitability for developing cushion cover. A 5 point rating scale was given to each expert and was asked to rate motifs and designs on given criteria. On the basis of relative ranking given by the experts, top scored 30 designs was selected from these 60 motifs and designs.

In India, different states are famous for their specific style of home furnishing (Arora, 2017). For example J&K is the leading state for embroidered bed covers whereas Rajasthan (Jaipur) is famous for block printed, tie & dyed bed covers, with mirror work, appliques, and bright colors. In present investigation, cushion cover were prepared using selected sculptures motifs obtained from *Sahastrabahu* temple (Table1).

Table1: Percentage distribution by the panel members for suitability of motifs for cushion cover. (n=20)

Motif code	1	2	3	5	6	8	9	10	12	13	14	18	21	22	24	25	26	27	31	32	33	36	40	45	46	47	48	53	54	59
Score (%)	78	70	83	85	79	78	66	65	86	65	68	74	80	63	87	69	84	83	76	78	68	84	85	68	78	74	66	81	60	70

It is apparent from the data given in table 1, the experts rated highest scores to 30 motifs (motif code no.1,2,3,5,6,8,9,10,12,13,14,18,21,22,24,25,26,27,31,32,33,36, 40,45,46,47,48,53,54, 59) out of sixty for the development of designs on cushion covers. Among all 30 selected motifs, the highest percentage (87%) was recorded for motif code no. 24 and lowest percentage (60%) was measured for motif code no. 54.

Top 30 Motif for Cushion Cover.



Motif code-1	Motif code-2	Motif code-3	Motif code-5
Motif code-6	Motif code-8	Motif code-9	Motif code-10
Motif code-12	Motif code-13	Motif code-14	Motif code-18
Motif code-21	Motif code-22	Motif code-24	Motif code-25
Motif code-26	Motif code-27	Motif code-31	Motif code-32



Motif code-33	Motif code-36	Motif code-40	Motif code-45
Motif code-46	Motif code-47	Motif code-48	Motif code-53
Motif code-54	Motif code-59		

3.2: Development of design and their placements

Selected 30 motifs were further used to develop Designs placements on cushion cover and 20 design placements were prepared and presented before 20 panel members for evaluations.

On the basis of relative ranking by the experts, 5 best design placements were used for the preparation of innovative value added cushion cover. The percentage distribution by panel members for suitability of design placements for cushion cover are given in Table 2


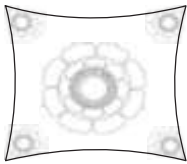








Table 2: Percentage distribution by panel members for suitability of design placements for cushion cover. (n=20)










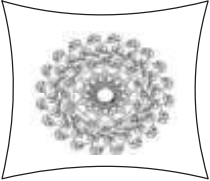
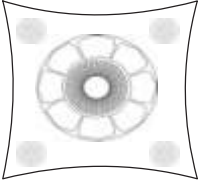

Placement code	Placement 1	Placement 6	Placement 8	Placement 9	Placement 12
Score (%)	75	78	85	72	86

Table 2 reveals that percentage distribution of design placement codes for cushion cover. Among 20 placements, experts found that placement code no. 12 was highly suitable for the development of cushion cover on a given criteria and hence, got highest percentage i.e. 86 whereas scores obtained for others 4 top ranked design placement (placement 1, placement 6, placement 9 and placement 12) varied from 72- 85 %.

Placement of cushion cover






Placement code-1	Placement code -2	Placement code -3	Placement code -4
			
Use Motif code-12,53	Use Motif code-1	Use Motif code-18,24,33	Use Motif code-14,2
Placement code 5	Placement code -6	Placement code -7	Placement code -8
			
Use Motif code-33,40,47	Use Motif code-13,26	Use Motif code-22	Use Motif code-32



Placement code -9	Placement code -10	Placement code -11	Placement code -12
			
Use Motif code- 25,54	Use Motif code- 10,22,59	Use Motif code-2,6	Use Motif code-53
Placement code -13	Placement code -14	Placement code -15	Placement code -16
			
Use Motif code-3,5,45	Use Motif code-31	Use Motif code-53	Use Motif code-31
Placement code -17	Placement code -18	Placement code -19	Placement code -20
			
Use Motif code-8,36,53	Use Motif code-46	Use Motif code-9,21	Use Motif code-27,48



3.3: Development of cushion cover-Selected 5 placement of motif and their design combination were applied on cushion cover by hand painting techniques using acrylic colour.

Placement code-1	Placement code-6	Placement code-8
		
Motif code use -12,53	Motif code use -13,26	Motif code use -32
Placement code-9	Placement code-12	
		
Motif code use -25,54	Motif code use -53	

4. Conclusion-

The researcher used sculpture from Sahastrabahu Temple for creating furnishing design through CAD. On the basis of relative ranking by the experts, top scored 30 designs was selected from 60 motifs and designs. Among 30 designs, 20 placements were further designed and developed for development of cushion cover by hand painting. This type of study was not only retain the motifs of the monuments but also preserve them as they are transferred to other medium like fabric.

Panel members appreciated the products and motifs selected for designing and also had an opinion that if such products are available in the market, they will purchase them. The panel members also suggested that such products can also be sold at the historical places as tourist visit and can purchase them as the souvenir of that place.



5. References

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