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### ADAPTATION OF "ART DECO" DESIGN STYLE USING DIGITAL PRINTING TECHNIQUE FOR DESIGNING HOME TEXTILE PRODUCTS

Sharvi Mudgal 1 . Dr. Pooja Singh 2 .

- <sup>1</sup> Student, B. Design, III<sup>rd</sup> Year, Footwear Design and Development Institute, Ministry of Commerce and Industry, Government of India, an Institution of National Importance, Banur, Chandigarh, Punjab, India
- <sup>2</sup> Faculty, School of Fashion Design, Footwear Design and Development Institute, Ministry of Commerce and Industry, Government of India, an Institution of National Importance, Banur, Chandigarh, Punjab, India





#### **Corresponding Author**

Dr. Pooja Singh, singhpooja396@gmail.com

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### **ABSTRACT**

This research paper explores the complex world of Art Deco, a well-known design movement that first appeared in the early 1900s. This study provides a comprehensive analysis of the key characteristics and influences that defined Art Deco, including geometric shapes, vibrant color palettes, exotic motifs, and diverse material choices. In the present study, researchers did experimental work on applying motifs inspired from Art Deco through digital printing. The researcher had adapted art deco motifs to create more stunning motifs of her own and applied them to home textile products by digital printing and designing the products was done using Ai (Adobe Illustrator) and Photoshop, one of the CAD software.

**Keywords:** Art Deco, Cad (Illustrator), Digital Printing, Home Textiles

### 1. INTRODUCTION

One reason Art Deco is so hard to pin down is that the phrase itself is a creation. It first arose in the 1960s, alluding to the 1925 Paris International Exhibition of Decorative Arts and Modern Industries. Right now, modern style wins out. Nearly every aspect of creation is impacted. Art Deco is widely used in everything from furniture to jewelry to apparel to architecture and watercraft (1).

The phrase "Art Deco," which was first used in the 1960s, is perhaps a collage of various styles, origins, and influences rather than a single style. The designers of Art Deco drew inspiration from a variety of sources, including historical European movements, Russian ballets, folk art, exotic and ancient cultures, contemporary avant-garde art, and urban imagery from the machine era (2).

The Art Deco style architecture is distinguished by its flashy features, which include futuristic design elements, geometric shapes, vibrant colors, and rich materials. Modernism has always been the main component of Art Deco design, and geometric expression of the term "modern" was common among architects and painters. Triangles, circles, squares, and rectangles were among these geometric shapes. These shapes were frequently utilized to express a feeling of order, symmetry, and precision as well as to make patterns that were striking and dramatic. Vibrant and lavish hues are commonly associated with the Art Deco era. To generate contrast, these Art Deco buildings use bold tones like gold and silver or black and white. The Empire State Building in New York City and the Hoover Building in London are two of the most well-known examples of art deco architecture, with their striking contrasts and eye-catching color schemes. Exotic and opulent materials including marble, brass, chrome, ebony, ivory, silk, and exotic woods are used in Art Deco architecture. These materials were frequently employed extravagantly and elaborately in an effort to exude refinement, elegance, and luxury (3).

Europe saw the heyday of Art Deco during its first jubilant decade. The movement adopted Greek, Mayan, and Egyptian concepts and motifs even though it originated as a broad attempt to make a design language fit for an interconnected modern world. Additionally, Deco took a lot of inspiration from modern movements including Fauvism, Constructivism, Futurism, and Cubism (4).

After Miami, Mumbai, India, is home to the world's second-highest concentration of Art Deco structures. The New India Assurance Building, which was finished in 1936, is among the best (5).

Few movements in design history have left as indelible mark as Art Deco. This stylistic change occurred at the beginning of the 20th century and epitomized the spirit of the times, marked by unprecedented change and technological progress. Its influence permeates all disciplines, from architecture to fashion, and continues to fascinate and inspire designers and enthusiasts to this day. Among many other things, the influence of fine arts on home textiles proves its long history.

Now that a century has passed since the art deco movement's original conception, architects and designers are turning to the past for inspiration, and the style is making a resurgence. The desire for glitz and grandeur in design is one factor in the Art Deco Revival. While modernism focused on simplicity and minimalism, Art Deco offered a return to extravagance and grandeur (6).

This research begins the journey of the interaction between the beauty of Art Deco and the world of home textiles. Beautiful patterns, Vibrant colors and attractive materials define this design, which finds a natural home in the field of textile creation.

In addition, this research paper focuses on the place of art in the general context of the history of its creation and examines its reaction to the culture of the period. As the world emerged from the chaos of the WW I, Art Deco provided a wonderful antidote, a symbolic escape from the collapse of the past. The passion for celebrating life reflected in her intricate textile designs provides a beacon of hope and promise in a rapidly changing world.

Finally, exploring Art Deco's influence on home furnishings not only pays homage to the past, but also inspires products for designers and users, reaffirming

the timeless elegance and artistic resonance that continues to define famous designs.

### 1.1. OBJECTIVES

- To develop the "Art Deco" design and transform these designs for creating designs for Home Textile products using Adobe Illustrator (CAD).
- To assess the developed designs and apply the selected designs on Home Textile articles via
- Digital printing.
- To gain the suitability of the prepared articles and determine their price.

### 2. METHODOLOGY

Research technique is an organized, scientific method used for analyzing a research problem as consistently and precisely as possible. The purpose of this study's analysis was to update "ART DECO" design motifs for the composition and design of Home Textile items applying Digital Printing technology.

### 3. COLLECTION OF "ART DECO" PATTERNS

Several "Art Deco " design ideas and designs were gathered from primary and secondary sources, starting with journals, internet, books, and visits to various retail establishments where all the crafts were featured.

# 3.1. ART DECO PATTERNS ADAPTED FOR DESIGN DEVELOPMENT

"Art Deco" patterns and elements were produced and applied to the creation of new designs. Adobe Illustrator- (CAD) was used for the designing.

10 designs altogether have been created for home textiles, containing two each for bed sheet, bed-skirts, bed-runners, bolsters, and Cushion covers.

Table 1

Table 1 Referring Codes/Numbers								
S. No.	Item Name	Code						
1	<b>Bed Sheet</b>	BB						
2	Bed Skirt	BS						
3	Bed Runner	BR						
4	Bolster Cover	В						
5	<b>Cushion Cover</b>	CC						



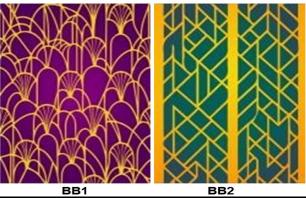


Figure 1 Developed Designs for Bed-Sheets

Figure 2



Figure 2 Developed Designs for Bed-Skirts

Figure 3

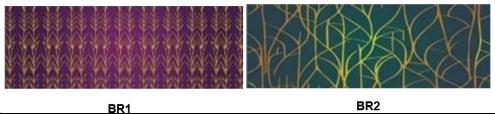


Figure 3 Developed Designs for Bed-Runner

Figure 4

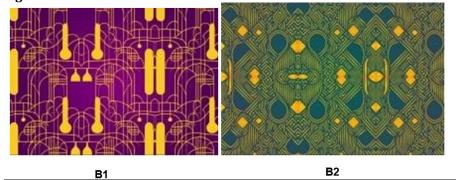


Figure 4 Developed Designs for Bolster Covers

Figure 5



Figure 5 Designs Developed for Cushion Covers

# 3.2. ASSESSMENT OF THE CREATED DESIGNS AND CREATION OF NEW PRODUCTS

A panel of 20 judges, consisting of 3 Home makers, 7 Teacher/ Professors, 10 students from the Footwear Design and Development Institute and other Colleges and institutes as well, evaluated the generated designs with the aim to identify the most acceptable design from each of the 10 Designs. The criteria was used for evaluation: Pattern arrangement, suitability of patterns for a particular product, color scheme, level of Art Deco likeness, and overall look. Digital printing one of the printing techniques was used to apply all the chosen designs on home textile products.

For this, a Performa with a five-point rating system was employed. The scores assigned to the products were 11, 2, 3, 4, and 5 denoted, in that order, fair, good, very good, and excellent.

Table 2

Table 2	On the	basis of	f Arran	gement	of Patte	erns (Ca	itegory	<sup>,</sup> 1)		
S No.	BB1	BB2	BS1	BS2	BR1	BR2	B1	B2	CC1	CC2
1	3	3	4	5	5	4	5	5	5	5
2	4	4	5	5	5	4	4	4	5	5
3	4	4	5	5	3	3	5	4	5	5
4	5	5	5	5	5	5	4	4	5	5
5	5	5	5	5	5	5	5	5	5	5
6	4	5	4	4	5	4	5	4	5	5
7	5	4	4	5	5	5	4	5	5	5
8	5	4	5	4	4	5	3	4	5	5
9	5	5	5	5	5	5	5	5	5	5
10	3	4	5	5	2	2	3	3	3	3
11	4	5	5	5	4	3	3	4	4	5
12	5	4	4	4	4	5	5	4	4	4
13	5	5	4	5	5	4	5	5	4	5
14	4	5	5	4	4	5	4	5	4	5
15	5	4	4	3	5	3	5	4	4	5
16	4	5	4	5	4	5	4	4	4	4
17	4	5	4	5	4	5	4	5	4	5
18	4	5	5	5	4	5	5	4	5	4
19	5	5	5	5	5	5	5	5	5	4

20	5	5	5	4	5	5	5	4	5	5
Average	4.4	4.55	4.6	4.65**	4.4	4.35	4.44	4.35	4.55	4.7*

Highest Score, Second Highest Score

Table 3

Table 3 A	Table 3 Appropriateness of Designs of particular Product (Category 2)											
S No.	<u>BB1</u>	BB2	BS1	BS2	BR1	BR2	<u>B1</u>	B2	CC1	CC2		
1	4	4	5	4	4	4	5	5	5	5		
2	3	3	4	5	5	4	3	4	5	5		
3	3	4	5	5	4	5	5	4	5	5		
4	3	3	4	4	4	4	4	4	4	4		
5	5	5	5	5	5	5	5	5	5	5		
6	5	4	4	4	5	5	5	5	4	5		
7	5	5	4	4	5	5	5	5	5	5		
8	4	5	4	5	4	4	5	4	5	4		
9	5	5	5	5	5	5	5	5	5	5		
10	4	4	5	5	4	4	5	5	4	4		
11	3	5	4	5	5	5	4	4	4	5		
12	4	4	4	4	4	4	5	5	5	5		
13	5	4	5	5	4	5	4	5	5	4		
14	4	5	5	4	5	5	4	5	4	5		
15	4	5	5	4	4	5	4	5	5	5		
16	5	4	4	5	5	5	5	4	4	4		
17	4	5	4	5	4	5	4	5	4	5		
18	4	5	5	5	5	4	4	4	5	5		
19	5	4	5	4	5	5	5	5	5	5		
20	4	5	5	4	4	4	5	5	4	5		
Average	4.15	4.4	4.55	4.55	4.5	4.6	4.55	4.65**	4.6	4.75*		

Highest Score, Second Highest Score

Table 4

Table 4	Table 4 Color Combination of the Product (Category 3)									
S No.	BB1	BB2	BS1	BS2	BR1	BR2	B1	B2	CC1	CC2
1	4	5	4	4	4	5	5	5	5	5
2	4	4	3	3	5	5	5	4	5	5
3	4	4	4	4	4	4	4	4	4	4
4	2	2	2	2	2	2	2	2	2	2
5	5	5	5	5	5	5	5	5	5	5
6	5	4	5	4	5	4	5	4	5	5
7	5	5	4	4	5	5	5	5	5	5
8	4	5	5	4	4	5	4	5	4	4
9	5	5	5	5	5	5	5	5	5	5
10	5	5	5	5	4	4	4	4	4	5
11	3	4	5	4	5	5	4	5	4	4
12	3	4	4	3	3	4	4	4	5	5
13	5	4	5	5	4	5	5	4	5	5
14	4	5	4	5	4	5	4	5	4	5

15	5	4	5	5	4	5	5	4	4	5
16	5	4	5	5	4	4	4	5	5	5
17	4	5	4	5	4	5	4	5	4	5
18	3	4	5	5	4	4	5	5	5	4
19	5	5	4	5	5	4	4	4	5	5
20	3	4	4	3	4	4	4	4	3	3
Average	4.15	4.35	4.35	4.25	4.2	4.45**	4.35	4.4	4.4	4.52*

Highest Score, Second Highest Score

Table 5

Table	Table 5 Extent of Relation to Art Deco of a Product (Category 4)											
S No.	BB1	BB2	BS1	BS2	BR1	BR2	B1	B2	CC1	CC2		
1	4	4	5	5	5	5	4	5	5	5		
2	3	4	4	4	4	4	3	4	5	5		
3	5	5	5	5	5	5	5	5	5	5		
4	4	4	4	4	4	4	4	4	4	4		
5	5	5	5	5	5	5	5	5	5	5		
6	5	5	5	5	5	5	5	5	5	5		
7	4	4	4	4	4	4	4	4	4	4		
8	5	4	4	5	5	4	5	4	4	5		
9	4	5	4	5	4	5	5	5	4	5		
10	5	4	5	5	4	4	4	5	4	4		
11	4	4	5	5	4	5	5	4	5	4		
12	4	3	3	4	5	5	5	5	5	5		
13	4	5	5	5	5	5	4	5	5	4		
14	4	5	4	5	4	5	4	5	4	5		
15	5	5	4	5	4	5	4	4	5	5		
16	5	5	5	4	5	4	4	4	5	5		
17	4	5	4	5	4	5	4	5	4	5		

Highest Score, Second Highest Score

Table 6

Table	Table 6 Overall Appearance of the Product (Category 5)											
S No.	BB1	BB2	BS1	BS2	BR1	BR2	B1	B2	CC1	CC2		
1	4	4	4	4	5	5	4	5	5	5		
2	3	4	4	4	4	4	3	4	5	5		
3	4	5	5	5	4	4	5	4	5	5		
4	3	3	3	3	3	3	3	3	3	3		
5	5	5	5	5	5	5	5	5	5	5		
6	5	4	5	4	5	5	5	4	5	5		
7	5	5	5	5	5	5	5	5	5	5		
8	5	5	4	4	4	5	4	5	4	4		
9	5	5	5	5	5	5	5	5	5	5		
10	4	4	4	4	3	3	4	5	5	5		
11	5	4	5	5	5	4	4	5	5	5		
12	4	4	4	4	4	4	5	5	5	5		
13	5	4	5	4	5	5	5	5	5	4		
14	4	5	4	5	5	4	5	4	5	5		

15	4	5	5	4	5	4	4	4	5	5
16	5	5	5	5	4	4	4	5	5	5

Highest Score, Second Highest Score

Figure 6



Figure 6 Overall Appearance of Bed Sheets and Cushion Covers

Figure 7



Figure 7 Overall Appearance of Bed Skirts, Bolster Covers

Figure 8



Figure 8 Overall Appearance of Bed Runner

**Product Development:** For product development. Digital Printing was done at StyBuzz Printers, Patparganj, New Delhi and Ren Technologies India Ltd, Sector-62, Noida. Polyester and cotton fabrics were digitally printed on using a digital printing machine and CAD software such as Adobe Illustrator to create the desired design. Carefully stitched printed fabrics were made in accordance with the design and size.

### 4. COST DETERMINATION

Each and every product was well crafted and each product's cost was determined by factoring in the amount of raw materials used, digital printing costs, stitching costs, and finishing costs.

Table 7

Table	7 The Follo	owing Table Shows	the Detailed Ve	rsion of Costing			
S No.	Items	Fabric Consumpt ion (Mete r)	Fabric Costing per Meter	Raw Material (Thread =5 each Zipper=15 each)	Printing Charges Per Meter	Stitching and Finishing	Overall Cost
1	BB1	2.25	250 x 2.25= 562.5	5	200 x 2.25= 450	80	1097.5 Rs.
2	BB2	2.25	250 x 2.25= 562.5	5	200 x 2.25= 450	80	1097.5 Rs.
3	BS1	7	110 x 7=770	5	100 x 7 =700	225	1700 Rs.
4	BS2	7	110 x 7=770	5	100 x 7 =700	225	1700 Rs.
5	BR1	1/2	250 x 0.5 =125	5	200 x0.5=100	40	270 Rs.
6	BR2	1/2	250 x 0.5 =125	5	200 x0.5=100	40	270 Rs.
7	B1	1	250 x 1 =250	20	200 x 1 =200	100	570 Rs.
8	B2	1	250 x 1 =250	20	200 x 1 =200	100	570 Rs.
9	CC1	½ M*2=1	250 x 1 =250	5	200 x 1 =200	80	535 Rs. (267.5 each)
10	CC2	½ M*2=1	250 x 1 =250	5	200 x 1 =200	80	535 Rs. (267.5 each)

### 5. SUMMARY AND CONCLUSION

The most difficult and rapidly developing industry is textile design since it offers so much opportunity for creativity. However, many people find it difficult to come up with "inspiration." Similar to its customs and traditions, France's rich design style is distinct and multifaceted.

These goods serve not only as daily necessities for the populace but also as beautiful items. The adoption of this textile style aids in the preservation of historical designs and provides new opportunities for textile designers. The goal of this project is to advance the textile industry by fusing distinctive style with digital printing technology. Using digital technology, the CAD-prepared patterns were effectively implemented to home textile items.

### 6. INSTRUCTIONS AND SUGGESTIONS

Overall work was highly appreciated, but in order to really bring out the beauty of the timeless style, it was suggested that new color schemes be experimented on, intricate designs be demonstrated to the audience, and the experimental idea of having it weaved rather than digitally printed be implemented which will be more suitable and enhance the beauty of the iconic French style.

### **CONFLICT OF INTERESTS**

None.

### **ACKNOWLEDGMENTS**

None.

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