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Editorial Note

It is with great pleasure and enthusiasm that we welcome you to the Volume 3 Number 1 issue of the International Journal of Arts, Architecture and Design (JAARD). We are honored to be a part of this scholarly endeavor and guide you through the world of artistic exploration, architectural innovation, and creative design thinking.

JAARD aspires to be a hub of intellectual discourse and creative expression in the realm of arts, architecture, and design. We are committed to providing a platform where original research, critical analysis, and innovative practices thrive. This journal is not only a repository of knowledge, but also a dynamic space for dialogue and collaboration among scholars, practitioners, and enthusiasts in the creative field.

Our editorial board comprises distinguished members who bring a wealth of experience and expertise to ensure the quality and rigor of the content published here. We encourage diverse perspectives and cross-disciplinary exchange, embracing a wide spectrum of topics from music to user experience design. We are honoured to share that our editorial board is enhanced with the addition of two distinguished members.

We invite you to explore the articles, essays, reviews, and commentaries presented in this volume. Your engagement and contributions will be vital in shaping the future of JAARD. We look forward to your scholarly pursuits and creative endeavors as we collectively explore the fascinating world of arts, architecture, and design.

JAARD is now indexed with Directory of Open Access Journals (DOAJ), DELNET and J Gate. This allows the authors work to reach a wider and appropriate audience.

Thank you for being a part of this exciting journey, and we eagerly anticipate the scholarly discoveries and innovations that will emerge through JAARD.

The Editors

Polka Dots: A Timeless Design Element and Its Exploration with Sustainability

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ABSTRACT

This abstract presents an exploration of the evergreen glamour of polka dots as a design element and their potential role in advancing sustainability. It explores the synergy between the timeless charm of polka dots and the persistent need for sustainable design practices. The paper encompasses a comprehensive study of polka dots, including their various sizes and color combinations.

Furthermore, this research highlights how the enduring design element of polka dots can serve as a bridge between classic aesthetics and contemporary design trends. Data for this study has been collected from diverse sources, including surveys conducted among design enthusiasts including design students, faculties and fashion influencers. These surveys aim to uncover their perceptions and preferences regarding polka dots and other design elements that can seamlessly integrate with sustainable fibers and fashion.

The ultimate goal of this research is to provide valuable insights and guidance to fashion designers, retailers, and manufacturers interested in incorporating sustainability into their practices. By analyzing the data, the research has revealed that sustainable fabrics can harmonize effectively with polka dot patterns. This finding underscores the potential for polka dots to play a pivotal role in the sustainable fashion landscape, catering to both the traditional and contemporary tastes of consumers.

Keywords - Sustainable fashion element, polka dots, classical element

1. Introduction

Polka dot is a pattern consisting of round circles regularly distributed on a fabric. As per oxford dictionary a polka dot design is one of many dots that together form a pattern, especially on cloth. Designs can be in various sizes and styles. The most classic ones are black and white, red and white, blue and white. Cotton, linen, polyester and silk are a typical choice for polka dot fabric patterns. Different fabrics structure was seen using polka dot design from the initial phase of development including chiffon, crepe, tulle, jersey knit, satin, denim, velvet, organza, lace suede fabrics(Adam Geezy, 2016; Jennifer Craik, 2009; Valerie Cumming, 2010). It's used for making retro-inspired and trendy dresses, skirts, blouses and shirts, summer dresses, nightgowns, kids wear, dresses, pants,

shirts, costumes, jumpsuits, scarves, jackets (Haramis, 2021; Valerie Cumming, 2010). Different size and design variation were observed in past fashion in the field of polka dots and different exploration were done. Figure 1 shows a different exploration with polka dots Fig 1 (Nicole Phelps, 2021; Stoloff & Cardenas, 2016; Valerie Steele, 1997)shows dot variation with respect to size as well as density (Hye-Won, 2007,) Fig (ii) shows polka dots in different figures. Mickey Mouse cartoon character popularized the use of polka dots in design figures printing elements(Tissura, 2019).

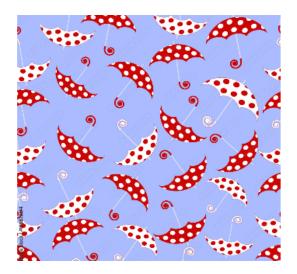


Fig 1.1. Polka dot Variation with size and density

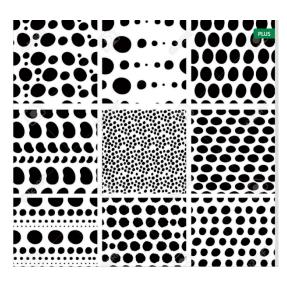


Fig 1.2. Variations of polka dots



Fig 1.3. fabric print design with color variation

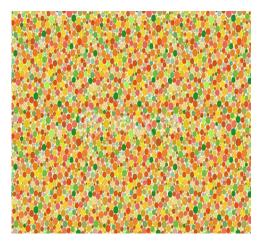


Fig 1.4 Use of polka dot in digital print

Fig 1.1,1.2, 1.3, and 1.4. Various exploration with polka dots as design element

1.1. SEMIOTICS: Origin and History of Polka Dot

The history of the polka dot pattern is rich and spans several centuries. Origin of the Term: The term "polka dot" is believed to have originated in the mid-19th century. It is thought to be derived from the dance called the "polka," which was popular in Europe at the time. The polka dance was known for its lively and energetic movements, and the term "polka dot" was used to describe the lively and vibrant nature of pattern 1.(Barbara Vinker, 2005; Fashion United, 2022; Valerie Steele, 1997)

1.1.1 Early Appearances: Polka dots first appeared in fashion during the mid-19th century in Europe. They were initially associated with lower-class clothing but gained popularity among various social classes over time





Fig 2(a)

Fig 2(b)

- Fig- 2 (a) early picture of Polka Dot clothing appeared at 1865 as shown at as Gilt framed tintype portrait of a woman in a polka-dot blouse
- **Fig 2 (b)** At 1935, Alice Faye the singer and actress wore a Polka Dot blouse in movie studio portrait (Kawamura, 2023; Yayoi Kusama, n.d.)
- **1.1.2 Popularity in the 20th Century:** Polka dots became particularly popular in the 1920s and 1930s and were widely used in women's dresses and accessories. They were associated with a sense of fun and playfulness during this era.
- **1.1.3 Film and Celebrity Influence:** The 1940s and 1950s saw polka dots featured prominently in Hollywood films, worn by iconic actresses like Marilyn Monroe and Elizabeth Taylor. This helped cement the pattern's status as a symbol of glamour and femininity.
- **1.1.4 Polka Dots in Pop Culture**: Polka dots continued to be a fashion staple throughout the 20th century and were embraced by various subcultures, from rock 'n' roll to punk and beyond. Polka Dots in Contemporary Fashion: Polka dots have never gone out of style and continue to be a popular pattern in modern fashion. Designers regularly incorporate polka dots into their collections, keeping

the pattern fresh and relevant. Artistic Expressions: Beyond fashion, polka dots have been used as a motif in various forms of art. Japanese artist Yayoi Kusama, for instance, is famous for her use of polka dots in her artwork and installations. Cultural Significance: Polka dots have cultural significance in different parts of the world. In some cultures, they are associated with celebration and festivity.

1.2. EVOLUTION OF POLKA DOT

- **1.2.1 Polka Dots in Vintage and Retro Fashion**: Polka dots have a strong association with vintage and retro fashion, particularly from the 1950s and 1960s. They were commonly used in dresses, blouses, and skirts during this era (Bianca, 2008).
- **1.2.2 Polka Dots as a Statement Pattern**: Polka dots are often used as statement patterns in fashion, adding visual interest and playfulness to clothing items. They can be used on both casual and formal wear, making them versatile(Valerie Steele, 1997).
- **1.2.3 Polka Dots in Contemporary Fashion**: Contemporary fashion designers continue to incorporate polka dots into their collections. Polka dot patterns can be found in dresses, blouses, jumpsuits, and even accessories like handbags and shoes(Haramis, 2021).
- **1.2.4 Polka Dots in High Fashion**: High fashion designers have also embraced polka dots. They use them to create unique and bold runway looks, demonstrating the versatility of this classic pattern (Kawamura, 2023).
- **1.2.5 Polka Dots as a Trend**: Polka dots have often been associated with femininity and girlishness. They are used in women's clothing to convey a sense of whimsy and elegance. Polka dots periodically experience a resurgence in popularity as a fashion trend. This cyclic pattern reflects the enduring appeal(Stoloff & Cardenas, 2016).
- **1.2.6 Polka Dots in Street Style**: Polka dots are not limited to high fashion; they are also a common motif in street style fashion. Street fashion enthusiasts often incorporate polka dot pieces into their eclectic looks (Barbara vinker, 2005).

1.3. NOTED DESIGNERS AND ARTISTS WORK

Many fashion designers have incorporated polka dots into their collections over the years, either as a signature element or as a recurring motif. Here are a few notable designers who have used polka dots in their collections:

1.3.1 Yayoi Kusama: Yayoi Kusama, a Japanese artist and designer, is perhaps one of the most famous proponents of polka dots in the art and fashion world. Her avant-garde artwork often features polka dots, and she has collaborated with fashion brands, including Louis Vuitton, to create polka dot-themed collections. (Yayoi Kusama, n.d.)

- **1.3.2 Marc Jacobs**: American fashion designer Marc Jacobs has frequently incorporated polka dots into his designs. He has used them in dresses, accessories, and even in collaborations with brands like Disney. (Haramis, 2021)
- **1.3.3 Comme des Garçons (Rei Kawakubo)**: Rei Kawakubo, the founder of the fashion brand Comme des Garçons, has used polka dots in her avant-garde and unconventional designs. Her collections often feature unexpected placements and sizes of polka dots. (Kawamura, 2023)
- **1.3.4 Carolina Herrera**: Carolina Herrera, a renowned fashion designer, has incorporated polka dots into her elegant and classic designs. Her polka dot dresses and gowns are known for their timeless appeal. (Stoloff & Cardenas, 2016)
- **1.3.5 Dolce & Gabbana**: The Italian fashion house Dolce & Gabbana has used polka dots in various collections, often giving them a playful and romantic twist. Polka dots have been featured on dresses, blouses, and accessories. (Nicole Phelps, 2021)
- **1.3.6 BETSEY JOHNSON**: American designer Betsey Johnson is known for her bold and whimsical designs, which frequently include polka dots. Her creations are often characterized by their youthful and colorful use of the pattern.(Bianca, 2008)
- **1.3.7 Michael Kors**: American designer Michael Kors has used polka dots in his collections, offering a contemporary take on classic styles. Polka dots have appeared on everything from dresses to handbags in his designs.(Nicole Phelps, 2019)
- **1.3.8 Louis Vuitton**: The luxury brand Louis Vuitton has featured polka dots in various collections, including collaborations with artists like Yayoi Kusama. Their iconic monogram canvas also includes subtle polka dot patterns.(Ware & Dickson, 2023)
- **1.3.9 Moschino**: Moschino, known for its playful and eccentric designs, has used polka dots in many collections. The brand often combines polka dots with other bold patterns and graphics. (Fashion UNITED, 2022)
- **1.3.10 Kate Spade New York**: The American fashion brand Kate Spade New York is known for its use of polka dots in handbags, accessories, and clothing. Their designs often feature colorful and cheerful polka dot patterns.

Apart from the international designers all brands and the local designers around the world used Polka dot in their collection at some point in time.

All the references show the use of polka dots in different periods with very little or more variation. Its use in different garments ranges from kids to adults. The use of polka dots is reported from the early fashion of the 19th century to the present. The significant presence of polka dots made it a timeless design element for textile design.

1.4. Concept of sustainability in fashion

In the field of fashion sustainability can be achieved by material elements and principle of design. The sustainable material includes natural and recyclable fibers. These materials make fashion sustainable either by their quality of biodegradability or by recycling the old garment into new products. Basic design elements are line, colors, texture, form, shape and dots. While the principle includes balance, proportion, harmony etc. Basic designs created by line and dot are observed to be some of the sustainable design elements. Use of check, stripes and polka dot is reported from early 19th century fashion to contemporary fashion.

1.5. Research Gap

There is a lack of research that explores the role of specific design elements, such as polka dots, in the context of sustainable fashion. Investigating whether polka dot patterns, which have endured over centuries, have the potential to promote slow fashion practices would provide valuable insights into the intersection of design aesthetics and sustainability. Such research could elucidate the extent to which certain classic designs may encourage consumers to buy less and invest in long-lasting, versatile clothing items. At the same time, consumers feel connected to the current trend. Little research exists on the psychological and cultural implications of polka dot patterns in fashion. Exploring whether polka dot designs are associated with a perception of affluence and opulence would be a valuable area of inquiry. Investigating whether polka dots are perceived as "rich" and whether this perception impacts consumer choices can provide insights into the marketing and consumer behavior aspects of sustainable fashion.

1.6. Aim of research

To determine the timelessness and enduring appeal of polka dots as a design element in the fashion industry. It is to investigate consumer perceptions, preferences, and attitudes regarding the aesthetics, colors, sizes, and their connection with sustainability in relation to polka dot patterns.

2. The Proposed Method

The research adopted an approach emphasizing quantitative research methods to comprehensively explore the glamor of polka dots as a design element and their potential role in advancing sustainability.

Data Collection for this paper has been done through a. Surveys: A structured survey designed and conducted using google forms over that 51 design enthusiasts responded including Fashion students and teachers and fashion influencers. On the basis of random sampling method of different age groups, gender and from different geographical locations to gather data on their perceptions and preferences regarding polka dots and their integration with sustainable fibers and fashion collected. The survey includes questions related to the appeal of polka dots, preferences for size and color combinations, and opinions on sustainable fashion.

Quantitative Analysis: Quantitative data from surveys has been analyzed thematically to identify recurring patterns and themes related to design preferences, sustainability, and the appeal of polka dots in the eyes of consumers.

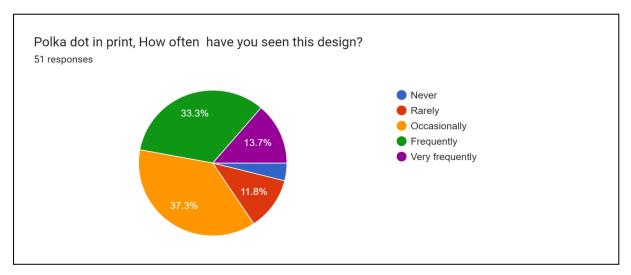
3. Results and Discussion

In this survey, a total of 51 participants took part, comprising 36 (70%) females and 15 (30%) males. They belong to various age brackets, with 65% falling in the 19 to 25 age group, 3% in the 26 to 30 age group, 22% in the 31 to 35 age range, 6% in the 36 to 40 age group, and 4% aged 41 and above. Participants hail from diverse geographical locations, with 13.7% residing in villages, 27.5% in semi-urban areas, and 58.8% in urban settings. Occupation-wise, 42.2% of respondents are college students, 29.4% hold graduate degrees, 25.5% have master's degrees, and 3.9% have doctorates. Among all participants, 39.2% are employed, 58.8% are college students, and 2% are involved in business activities.

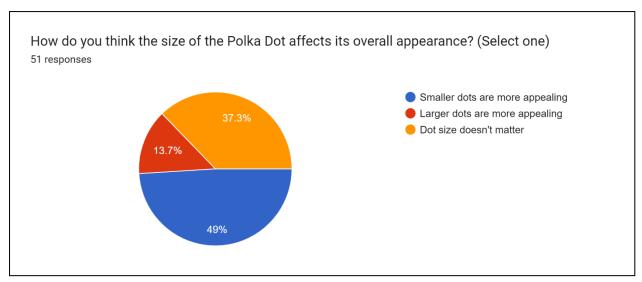
3.1 Quantitative Analysis

15 questions were framed for quantitative analysis of this research.1st question was framed as "How often have you encountered Polka Dot design?" (a) 33% of respondents reported frequent sightings, 37.3% indicated occasional encounters, 13.7% mentioned very frequent observations, 11.8% claimed rare sightings and 3.9% stated they have never seen it. Regarding the query on the impact of Polka Dot size on its appearance (b) 49% of respondents preferred smaller dots, 13.7% favored larger dots and 37.3% found the dot size inconsequential to their preference.

Upon analyzing the data, it has been understood that people are more likely to wear a garment or accessories a number of times if it has Polka dot. Considering the Polka Dot as a classical element which will never become fad and wide acceptance among all age groups and era makes it sustainable.



(a) Fig 3. Showing data analysis for questionnaire



(b) Fig 4. Showing data analysis for questionnaire

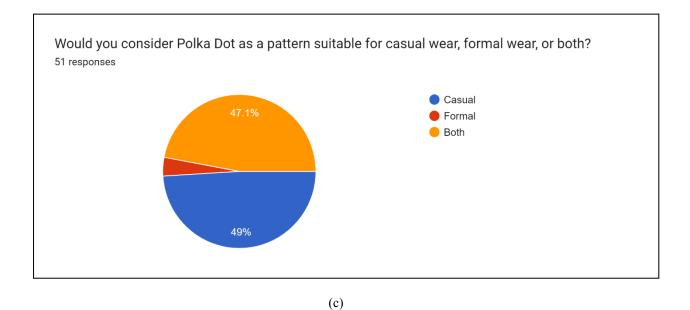
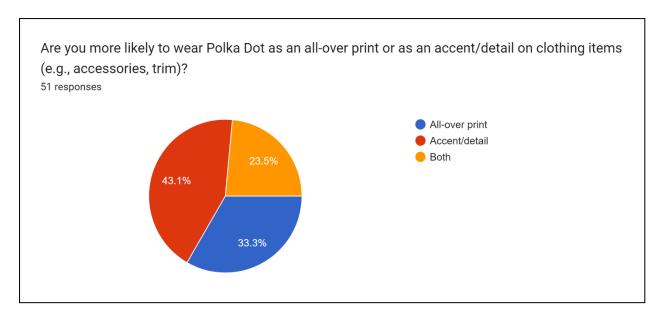


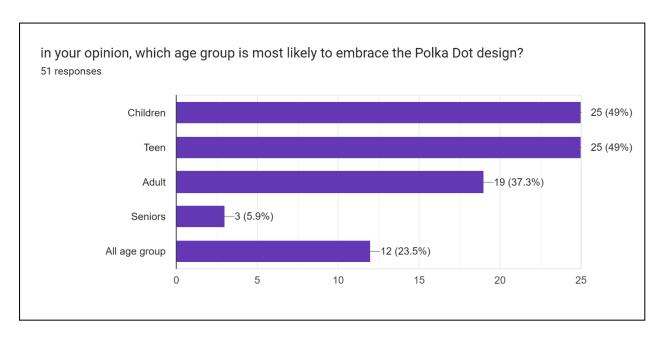
Fig 5. Showing data analysis for questionnaire



(d) Fig 6. Showing data analysis for questionnaire

When asked if Polka Dot is suitable for casual wear, formal wear, or both (c) 49% considered it suitable for casual wear, 3.9% voted for formal wear and 47.1% believed it was appropriate for both casual and formal settings. Regarding the preference for all-over print or as an accent/detail on clothing items (d) 33.3% opted for an all-over print, 43.2% preferred Polka Dot prints in accessories, trims, and details whereas 23.5% opted for both

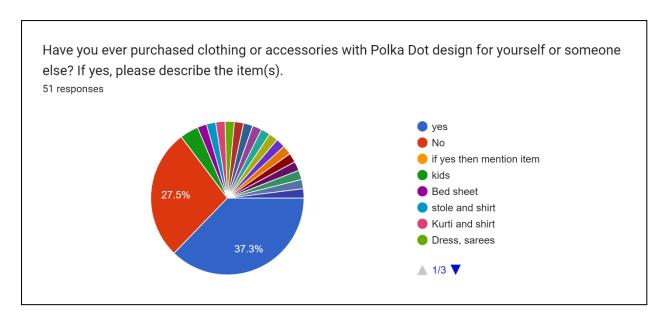
Responding to the question about the age group most likely to embrace Polka Dot design (e) 49% believed children would embrace it, 49% thought teens would, 37.3% considered adults, 5.9% mentioned seniors and 23.5% believed it would appeal to all age groups. In this question multiple answering were allowed



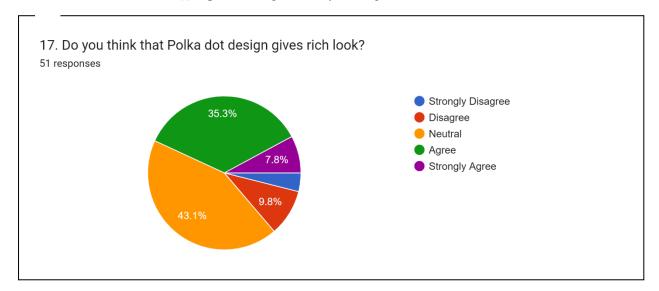
(e) Fig 7. Showing data analysis for questionnaire

When queried about purchasing clothing or accessories with Polka Dot design (f) 83% confirmed they had made such purchases and 17% had never bought Polka Dot items. They also listed a diverse range of products, including bed sheets, stoles, shirts, Kurtis, dresses, sarees, hair bands, scrunchies, bags, tops, skirts, and crop tops.

While replying to question whether polka dots give rich look (g) 7.8% responded were strongly agree and 35.3% were agree and 43.1% shown their neutral behavior

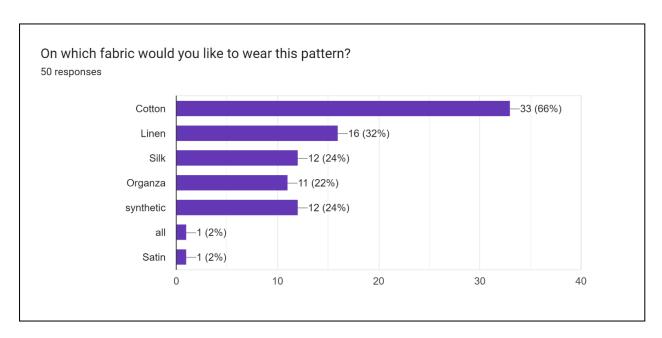


(f) Fig 8. Showing data analysis for questionnaire



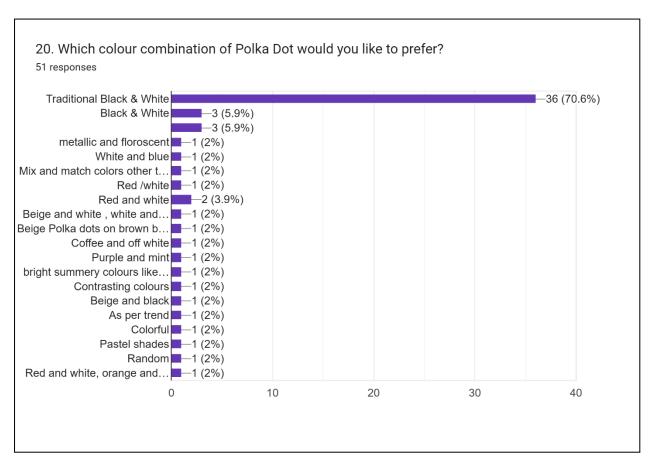
(g) Fig 9. Showing data analysis for questionnaire

When queried about fabric preferences for wearing the pattern (h)respondents provided a wide range of choices, with 66% favoring cotton, 32% opting for linen, 24% selecting silk, 22% indicating a preference for organza, 24% favoring synthetic fabrics, and 2% each showing a preference for satin and all fabric types.



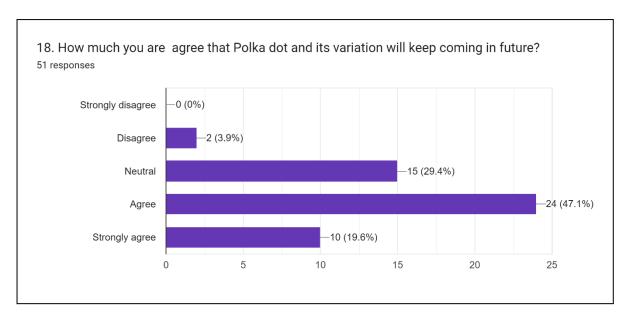
(h) Fig 10. Showing data analysis for questionnaire

In terms of color preferences (i) , a substantial 70% favored the traditional Black & White combination, while the remaining 30% expressed various preferences, including metallic, pastel, red & black, and other contrasting colors.



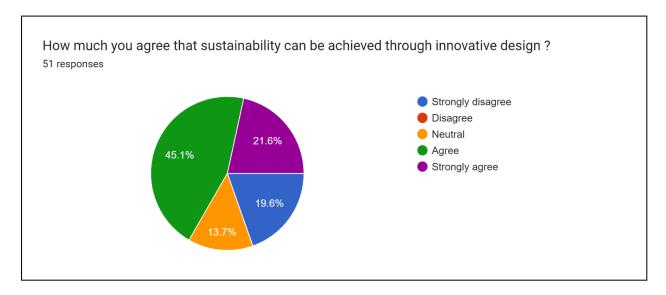
(i) Fig 11. Showing data analysis for questionnaire

In the context of Polka Dot's enduring presence in fashion (j), 47.1% strongly agreed, 19.6% agreed, 29.4% were neutral, and 3.9% disagreed, with no strong disagreement expressed.



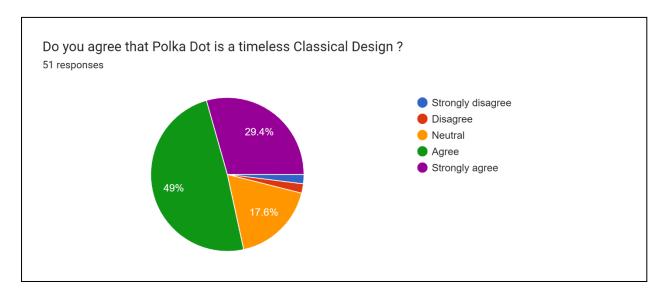
(j) Fig 12. Showing data analysis for questionnaire

When it were enquired whether sustainability can be achieved through innovative design (k) 21.6 % people were strongly agreeing while 45.1% were agree 13.7% people shown their neutral response and 19.6% people were disagree



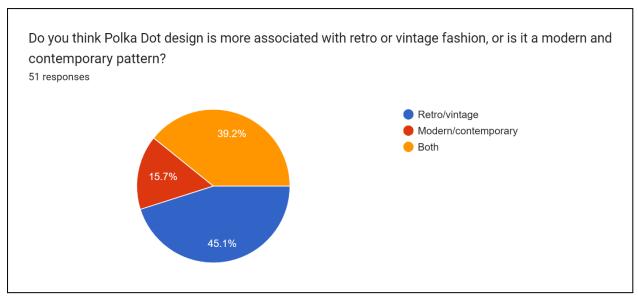
(k) Fig 13. Showing data analysis for questionnaire

While replying to question whether polka dot is sustainable timeless classical element (1) 29.4 % people were strongly agree 49% were agree 17.6 were neutral and only 4% people were disagree



(1) Fig 14. Showing data analysis for questionnaire

While replying to question Polka Dot design is more associated with retro or vintage fashion, or is it a modern and contemporary pattern (m) ,45.1 % people replied it is more associated with retro and vintage while 39.2% people replied it is more associated with modern and contemporary fashion while 15.7 % considered it as both. This response shows that Polka dot is a timeless element and which will sustain in the future.



(m) Fig 15. Showing data analysis for questionnaire

4. Conclusion

Survey examines perceptions of Polka Dot's timeless classical appeal, with a substantial majority embracing it as a design that transcends time. The sustainability aspect also resonated with participants, as a significant percentage recognized Polka Dot as a potential sustainable design element. Remarkably, Polka Dot design has garnered acceptance across all gender categories, spanning men, women, and children. From a fashion forecasting perspective, the majority of respondents foresee its enduring presence in the future. This design stands as a testament to its timeless and classical nature, transcending gender boundaries. It enjoys recognition and popularity across diverse geographical backgrounds, including rural, semi-urban, and urban areas. The data also revealed a noteworthy trend: a majority of participants have actively purchased clothing and accessories featuring Polka Dot designs. This underscores the versatility of Polka Dot in various fashion forms. Polka Dot design in fashion, with responses varying from those who associate it with retro or vintage styles to others who see it as a modern and contemporary pattern. Impressively, a substantial percentage found Polka Dots to bridge both fashion eras. As polka dot designs were found suitable for most types of categories ranging from kid wear to adult wear and it were found in all periods in fashion therefore repeat use is possible also garments can be redesigned and reused and hence promote sustainability. The data indicates that a significant portion of the population holds the belief that Polka Dot design imparts an elegant or luxurious aesthetic and can harmonize effectively with sustainable materials and fabrics. The timelessness and the consumer preference towards the polka dot design elements suggest that consumers are not fed off, they consider it as a classic which make it sustainable. If we use this design element on the sustainable fabrics and related materials,

consumers will love to wear the products for longer duration which ultimately increases the lifespan and leads to the sustainable practice.

In conclusion, Polka dot is a classical timeless sustainable design element, remaining popular worldwide. It is anticipated to continue its presence in the fashion landscape, youth and all design enthusiasts will continue to prefer it.

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The Representation of the Moroccan Culture in the Works of Ayoub Normal

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ABSTRACT

Ayoub Abid, also known as 'Normal,' is a highly esteemed graphic designer, illustrator, and muralist hailing from Agadir, Morocco. His artistic prowess is evident through his distinct style characterized by complimentary colours, intricate compositions, and captivating forms, garnering him a devoted following within the Moroccan art sphere. This study delves into the visual components that contribute to Normal's widespread appeal, dissecting his visual compositions, analyzing his meticulous colour selections, the deliberate arrangement of forms, and the profound cultural significance embedded in his visual symbolism. By unraveling the nuances of how he articulates his Moroccan heritage through his artwork, a deeper comprehension emerges regarding the resonance his creations hold with the local audience.

Keywords – Visual identity, Moroccan culture, Cultural authenticity, Illustration art

1. Introduction

Ayoub Abid, also known as "Normal," is a graphic designer, illustrator, and muralist based in Agadir city, Morocco. He developed a passion for art and music at a young age, which led him to pursue a degree in graphic design from the ArtCom Sup school in Rabat in 2011. With a multidisciplinary approach, Normal explores various mediums and has developed a distinctive style and colour palette. Since 2014, he has collaborated on significant cultural projects such as Boulevard (2017, 2018 & 2019 – poster and graphic chart), Gnaoua Festival (2018 & 2019 – posters), and British council (POP UP Studio 2018). Additionally, Normal has created numerous murals both in Morocco (Tiznit, Rabat, Casablanca) and abroad (Fresh Paint OLLN, City of Ottignies Louvain-la-Neuve).

Normal initially focused on revamping musical groups' albums and visuals until he started making acquaintances who involved him in muralism. Inspired, he began creating his own frescoes, viewing walls as his canvas and the streets as his gallery. Normal's ambition is to spread the art of street art muralism to other cities in Morocco. He believes this project requires meticulous logistical planning and the involvement of the city's residents. He emphasizes the growing interest from the general public in their work but stresses the need for greater appreciation and support from investors and decision-makers (Elkhodari, 2022).

In recent years, Morocco has experienced a notable surge in the emergence of a new generation of Moroccan artists who are actively engaging with public spaces to express their artistic visions on a grand scale. This movement has had a transformative effect on cities such as Rabat and Casablanca. Initially, street art was not taken seriously, often seen as mere decoration for the exteriors of high schools and primary schools, occasionally accompanied by awareness messages. These early illustrations were often created by amateurs or beginners, lacking in colour choice, composition, and content. Consequently, they failed to garner public recognition or appreciation as either a legitimate art form or a means of communication. However, with the growing interest in street art among diverse Moroccans, the quality of these visual creations has undergone a significant change. The public is now witnessing large-scale illustrations that are aesthetically appealing and convey subtle messages.



Fig1 - By Mohammed Touirs known as Ed Oner, dedicated to the Qatar World Cup 2023



Fig 2 - Frescoes done by Mehdi Anassi for his old high school in Casablanca



Fig 3 - Frescoes done by Sami Gsnoussi in Casablanca

A wide range of styles and colour palettes have been utilized to reconstruct and modernize Street Art in Morocco. Normal, a prominent figure in this field, has actively participated in and led numerous workshops and festivals of street art both within Morocco and internationally. In an interview conducted by Fresh Paint (2021), Normal discussed his approach to his Mural work (figure 4), highlighting his tendency to draw inspiration from subtle elements such as images or elusive feelings that can be challenging to capture.



Fig 4 - Normal's Mural illustration with Fresh Paint OLLN in Belgium (Taken from: https://www.freshpaintolln.be/artistes/normal/)

Normal's artistic practice is characterized by ongoing experimentation within a unified visual framework. His work spans various forms, including murals, both commercial and personal poster designs, screen-printed illustrations, tattoos, and wood installations. The artist appears to be in a

perpetual quest for a medium that aligns with his creative vision; nevertheless, this exploration has culminated in a distinctive visual authenticity. This cultural accuracy not only forges connections among the diverse mediums he employs but also consistently engages and resonates with the local audience. A predominant theme throughout his work centers on three key elements: polarities (opposites), the expression of feminine figure, and an exploration of mysticism or spirituality.

2. Preliminary study

A preliminary study was undertaken to explore the representation of Moroccan identity within the local visual arts sector. Participants were administered a total of eight questions via a Google Form, necessitating a Gmail account for participation. The data collected were subsequently analysed using Google Sheets, which facilitated the generation of a comprehensive summary of responses. The survey was conducted in Arabic, with translations provided in English to ensure clarity and accessibility for the research objectives. This methodological approach allowed for a systematic examination of the intersection between cultural identity and visual expression in Morocco. The study primarily involved young Moroccan artists and designers between 25-30 residing and working in urban areas. The sampling targeted three main art domains: visual artists (including illustrators, painters, and animators), filmmakers, and graphic designers.

Based on the responses, it was explained by the majority of participants that Morocco's ethnographic diversity poses a challenge in terms of establishing a consistent and coherent national style. This challenge arises from the wide range of elements such as Arabian tiles, Amazigh tattoos, and African patterns, all characterized by strong colours. Furthermore, the geographic diversity of Morocco also contributes to this challenge, as it is not easily summarized by one or two single colours. In the northern part of Morocco, the predominant colours are white, blue, and green, whereas the southern region is represented by orange, red, yellow, and brown hues. However, Participants recognize Morocco's diversity as an opportunity for inspiration, drawing from a wide range of visual elements. They mentioned the Moroccan visual aesthetics that is characterized by a vibrant blend of Arab, Berber, and Islamic influences, incorporating elements of Mediterranean, African, and Andalusian traditions. When participants were asked to identify a Moroccan artist who effectively conveys the richness of Moroccan culture through visual art, Ayoub Normal emerged as one of the top three selected artists. His work has consistently garnered appreciation from audiences, as it offers a unique interpretation of Moroccan identity that diverges from the clichés prevalent in the Moroccan painting scene since the 1980s. Avoub Normal appears to have developed a novel approach that not only provides a contemporary perspective on local culture through modern mediums but also incorporates nuanced local symbolism within his forms and color palettes.

3. Identifying Ayoub Normal's colour palette

In order to comprehend the appeal of Normal's work to the audience, we must first examine his visual elements. One of the reasons for his fame lies in his colour choice, which, although not original or new in the Moroccan market, when combined with his composition, illustrations, and forms, creates a distinctive style. Our analysis will focus on two significant aspects: colour and form. To better

understand the development or changes in his palette, we have gathered various artworks from different periods and organized them in a precise timeline (figure 5).



Fig 5 - Normal's artwork between 2017 and 2018

Based on Sanzo Wada's online colour dictionary, Normal's first piece prominently features Spectrum Red #f20000, Red Orange #e81900, Olive Green #718600, and Krongberg Green #759243. Additionally, it is worth noting that this artwork falls within three colour combinations suggested by Sanzo Wada, as depicted in figure 6 were the artwork exhibits a striking use of bright colours.

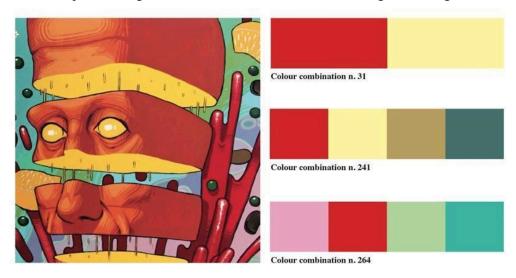


Fig 6 - Normal's 2017 – 2018 artwork 1 depending on Sanzo Wada colour combination

On his second artwork on figure 7, the artist also demonstrates his skill in working with a darker palette, employing dim shades with and pale tones. According to Wada's colour framework, there are three dominant colours which are, Vistoris Lake #5C2C45, Blackish Olive #324E2A and Hay's Russet #681916. The artwork matches two combinations, with the number 63 where the Cerlian Blue is replaced by Andover Green.



Fig 7 - Normal's 2017 - 2018 artwork 2 depending on Sanzo Wada colour combination

In 2020, the artist has made a deliberate shift in his colour choices, opting for paler tints. On figure 8, there are two artworks by the artist that prominently feature Coral Red #FF7399, Cream Yellow #FFB852, Dull Blue Violet #6E66D4, and Antwarp Blue #008AA1. These two illustrations fall into two distinct Wada combinations, namely number 9 and number 320 as it is showcased in figure 9.



Fig 8 - Normal's artwork in 2020



Fig 9 - Normal's 2017 – 2018 artwork 3 depending on Sanzo Wada colour combination

From 2017 to 2020, the artist explored various colour shades and tints as part of his visual research process. However, in 2021, as depicted in figure 10, the artist began to focus more on his colour choices, aiming for greater consistency. In his artwork from 2021, the artist employed complementary colours to create a sense of dynamism. Specifically, he used shades of blue and orange, alternating between the two, as well as yellow and violet. The dominant colours of his 2021 artworks are Peach Red #FF3319, Violet Blue #202D85 and Deep Grayish Olive #505423.



Fig 10 - Normal's artwork in 2021

As depicted in Figure 11, the artist's artwork can be categorized into eight Wada colour combinations: numbers 89, 115, 146, 274, 297, 309, 339, and 343. By matching with numerous colour combinations proposed by the Sanzo Wada framework, it becomes evident that the artist has successfully identified complementary shades that enhance the vibrancy and

overall appeal of his work. This exploration of colour coordination not only adds visual interest but also contributes to the artwork's overall aesthetic appeal.



Fig 11- Normal's 2021 artwork depending on Sanzo Wada colour combination

From 2021 to 2023, the artist's use of colour has shown a consistent pattern. Over the years, the palette choice has gradually become more limited, with a maximum of 8 dominant colours used (excluding blended shades). These colours are balanced between cold and warm tones.

In the artwork of 2023, as depicted in figure 12, we observe a recurrence of previously used colours, such as Violet Blue #202D85, a slightly darker version of Cream Yellow, and Antwarp Blue #008AA1. Additionally, two new colours have been introduced: Brick Red #A32100 and a slightly darker version of Fresh Colour #CA4F55. On figure 13, we noticed that the 2023 palette matches 9 of Sanzo Wada colour combinations, number 37, 85, 89, 106, 114, 140, 172, 208 and 246.



Fig 12 - Normal's artwork in 2023



Fig 13 - Normal's 2023 artwork depending on Sanzo Wada colour combination

After carefully examining the colour timeline of Normal's work and his palette construction, we have deduced the final palette displayed in figure 14. Throughout the artist's body of work, we observed a technique of blending, resulting in various tones that are merely a gradient version of the primary colours used. Our analysis reveals that the artist utilized a combination of six colours, evenly distributed between cold and warm tones. Additionally, there are four secondary colours present, including light beige, light green, and two distinct shades of violet.

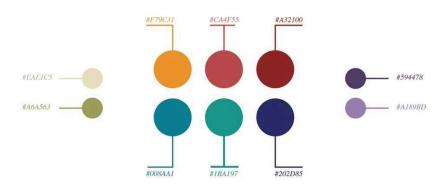


Fig 14 - Normal's palette – the colours are referenced according to Sanzo Wada's dictionary

In our analysis of Normal's deducted palette, we focused on the six major colours he utilizes and their saturation range. On figure 15, we conducted a study that revealed Normal's tendency to employ a combination of both darker and muted tones. The findings indicated that the artist's chroma consists of 30% light colours and 70% darker ones. Notably, Normal displays a preference for tones with an earthly, natural appearance. Rather than relying on vivid colours for dynamism, he achieves this effect primarily through his use of complementary colours.

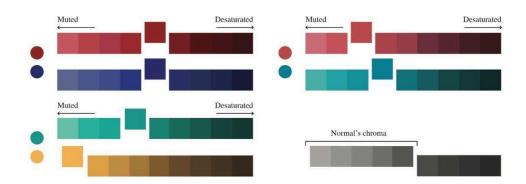


Fig 15 - Normal's palette - colour chroma

Normal's use of complementary colours is evident in his choice of an Orangish Yellow #F79C31 paired with both Violet Blue #202D85 and a slightly darker version of Antwarp Blue #1BA197. By selecting a colour that falls between yellow and light orange, he creates a foundation for two

complementary combinations. Additionally, the green #1BA197 serves as an anchor for the darker version of Fresh Colour #CA4F55 and Brick Red #A32100. Figure 16 further illustrates that Normal's artwork consistently achieves a well-balanced blend of warm and cold colours. However, in certain artworks, the artist deliberately emphasizes a specific colour, such as Violet Blue #202D85, Brick Red #A32100, or the orangish yellow #F79C31, resulting in either a complete warm or cold dominance.



Fig 16 - Normal's palette - complementary colour combination and colour dominance

We have noticed a striking resemblance between the shades used by Normal and the traditional Moroccan tiles. In a documentary by Business Insider (2023), we gained an insight about the process of making Moroccan Fezi tiles. In the last steps of making, they are taken to a wood-fired kiln for a first cook. Then they are glazed and put back into the kiln for a second firing, ensuring that the colour won't fade. "It also gives the Zelij tiles one of their most distinct features, heat doesn't circulate evenly in a traditional Moroccan kiln, which is why each tile, even those with the same colour glaze, will have a slightly different shade".

Figure 17 showcases the similarities between the colours achieved in Fezi tiles through the use of natural elements and various firing processes. These colours bear resemblance to Normal's palette, as he appears to favour subdued, earthy tones over vibrant ones.



Fig 17 - Palette similarities between Normal and Fezi tiles

4. The cultural symbolism in Ayoub Normal's artwork

In his book "Kokra in Amazigh Mythology", Mohamed Ossouss (2008) talked about this union of polarities as a concept that is rooted in the Amazigh thinking. As he mentioned the myth about the origin of day and night, he explains how it reflects a cosmological vision deeply ingrained in the collective unconscious of the North African culture. This vision is characterized by dialectical dualities, such as day/night, which give rise to various layers of meaning. These layers encompass concepts such as good and happiness versus evil and inauspiciousness, right and left, black and white, green, and dry, light and darkness, the human world and the world of goblins, spirits, and the dead, as well as an underworld and upper world, domesticated nature and savage wild nature, and life and death. These dualities form the foundation of traditional Amazigh thinking, shaping their ritual themes and influencing their efforts to maintain balance or mitigate the dangers associated with these dualities through rituals and behaviours.

The artist has expressed before that he aims to visually express the concept of polarities, emphasizing his goal of merging opposites to achieve harmony through contrast. This artistic approach is reflected in his colour choices, which we have previously analysed and found to heavily rely on complementary combinations. Examining figure 18, we can observe that approximately 90% of the artist's work features a female figure or a neutral figure with feminine characteristics.



Fig 18 - Prominent female figure in Normal's work

The star symbol holds great significance in Moroccan culture and history. It has been used in various forms such as coins, tiles, flags, fashion, and architecture. Its presence throughout Moroccan history is undeniable. Figure 19 showcases the earliest documented banner featuring the star shape. Nabil Mouline (2023) explains that this banner, used during the battle of "Las Navas de Tolosa," emphasizes the core belief of the Almohades. Additionally, he highlights the significance of the eight-star shapes, which are nested within one another, and the presence of eight crescents at the bottom of the flag. This repetition of the number eight is a reference to Islamic texts that state the throne of God is held by eight angels. It is a symbolic representation of the Almohades' ambition to not only rule north Africa, but become caliphs Islamic also to the of the world.

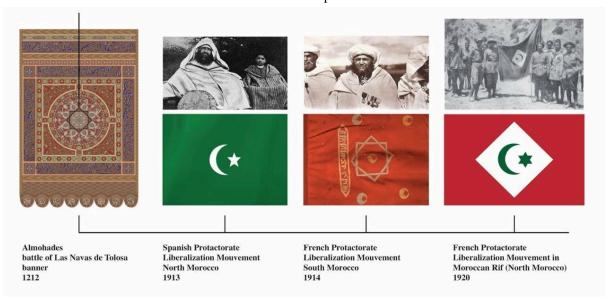


Fig 19 - The history of Morocco's flags and their star shapes

The star shape has appeared multiple times on the Moroccan flag. In 1913, it resurfaced during a liberalization movement in north Morocco led by Ahmed Rissouni against the Spanish protectorate. It reappeared in 1914 with another liberalization movement led by Mohamed Ben Abdelkarim El Khettabi in south Morocco against the French protectorate. Once again, in 1920, it was used in a movement led by Moha Ouhamou Zayani, in north Morocco, against the same regime. The official flag for Morocco, which included a green five-pointed star and a red background, was assigned during the French Protectorate in 1915. Figure 20 showcases the variations of today's Moroccan flag in different banners.



Fig 20 - The variations of the Moroccan star in military forces banners

The eight-pointed star, much like the six-pointed Najmat Dawud, has been found in different forms throughout various civilizations and cultures (figure 21). It has been used as an architectural element in medieval Hindustan, specifically in Indo-Islamic architecture, by both the rulers of the Delhi Sultanate and the later Gurkanis. This star has a rich history and has been interpreted in different ways across the world. The Islamic Najmat-al-Quds and its predecessor, the Rub-el-Hizb, are distinct variations of the eight-pointed star. Both designs feature a set of overlapping squares at their core, which adds to their unique aesthetic. The Islamic Najmat-al-Quds, in particular, holds cultural and religious significance within the Islamic tradition. These intricate star designs showcase the rich artistic heritage of Islamic art and architecture (Mukherjee, 2018).

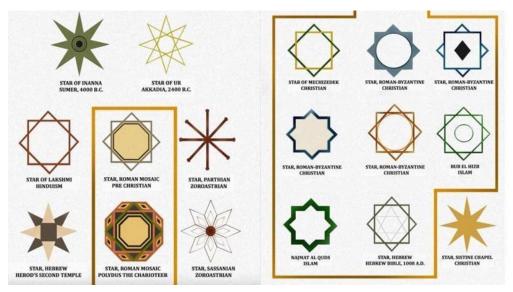


Fig 21 - The development of Najmat-Al-Quds

The earliest dynasties that ruled Morocco originated from the Middle East and brought with them Islam, along with language, knowledge, and ideologies. The five-pointed star symbolizes the five pillars of Islam, which include monotheism, prayer, zakat, fasting, and Hajj. This star confirms the importance of these pillars and their connection to the monotheism of God Almighty. On an anthropological and mythological level, Moroccans associate the five-pointed star with moving shepherds, particularly in the desert, as it serves as their guiding light towards the north during the night. On the other hand, the eight-pointed star in Islam represents three sacred elements. Firstly, it signifies its sanctification due to the presence of an eight-pointed star drawing. Additionally, it alludes to the gates of Paradise mentioned in the Holy Qur'an. (According to the authentic Prophetic hadith): Referral to the eight angels who carry the throne of God Almighty. (Surat Al-Haqqa, verse 17: "and the angels [will appear] at its ends, and, above them, eight will bear aloft on that Day the throne of thy Sustainer's almightiness"). On figure 22, 23 and 24, we can see the representation of the different stars in the Moroccan artisanal objects, coins, and architecture.

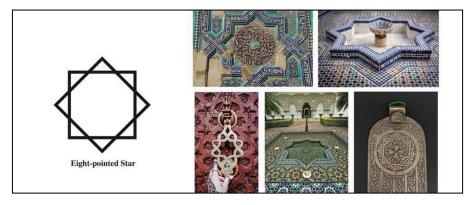


Fig 22 - Eight-pointed star in Moroccan architecture

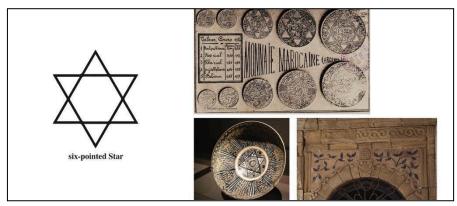


Fig 23 - Six-pointed star in Moroccan architecture and pottery



Fig 24 - Five-pointed star in Moroccan coins

Moroccan architects have developed a meticulous outline system to achieve architectural precision in placing the eight-pointed star (figure 25). This system has been further expanded to include more complex forms, such as the 16- or 24-pointed star, as well as simplified versions. Not only does the outline system allow for the creation of diverse star shapes, but it also enables the repetition of smaller forms in patterns, resulting in unique compositions.

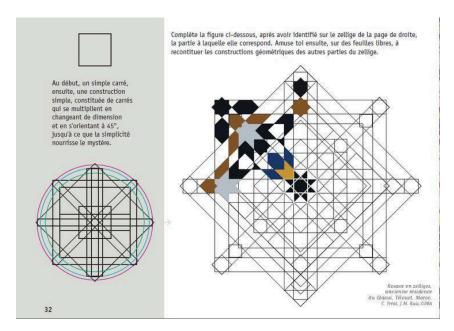


Fig 25 - Zelij star structure system (taken from: https://www.marrakechguidedtours.com/blog/zellij-the-art-of-mosaic)

Figure 26 displays seven variations of a star shape derived from a single one. These variations are utilized in various compositions, resulting in a wide array of patterns. Consequently, the star shape in Morocco holds significance as a spiritual, religious, and intellectual symbol. Over time, it has transitioned from being depicted in books, seals, flags, and accessories to being incorporated into architecture, coins, pottery, and tapestry as a decorative motif.

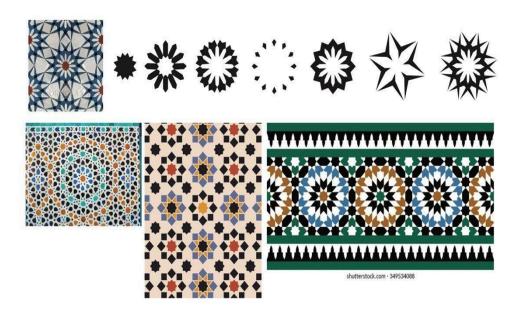


Fig 26 - Different variations of the star shape in the Moroccan Zelij (tiles)

For a Moroccan artist, it is customary to incorporate the symbol into their artwork in its many different forms, allowing it to subconsciously emerge. This is a natural choice due to the symbol's deep cultural significance and its ability to convey meanings and emotions unique to Moroccan art. Through the use of this symbol, the artist pays homage to their Moroccan heritage and contributes to the ongoing tradition of Moroccan art. In figure 27, the star shape is prominently featured in various visual compositions of Normal's work such as: short animations, illustrations, installations, and mural art.



Fig 27 - Normal's use of the star shape in his artwork

The representation of the "star" holds great significance in Normal's work. According to Fatim Ez-zahra Ben Khallouq (2022), titrrit -which is the female star in Amazigh language- is considered essential among Amazigh women for establishing a connection with the divine "ait uffəlla: those above or those in the heavens". The star serves as a messenger and a confidante, symbolizing the divine presence: "a titritt d yulin lɛar yigam ata yast i rəbbi ad id yigit", "Oh rising star, please pray to God to grant my wishes."

The star in Normal's work sometimes allures also to the sun, especially when combined with the crescent moon. This visual combination between these two polarities is also embedded in the Amazigh mythology. These North African tribes would worship the sun and moon and present sacrifices to them. In a cosmogonic Amazigh myth, we find the process of their creation "In the beginning, there was neither the sun nor the moon, and they were created in the following way: One day a young bull (Azker) and a young sheep (Isimer) met and became friends. Together they were both afflicted with the disease (a tumour that appears on the outside of the animal's eyelid), and the first mother of the world noticed this (...) and extracted the tumour from their eyes by cutting the edge of their affected eyelids in the shape of a crescent, then throwing the edge of the bull's eyelid, into a bowl full of water, and threw the edge of the sheep's injured eyelid into the fire (...) the bull's eye

became the sky (...) As for the tip of his sick eyelid, which was cut in the shape of a crescent, it became the moon (...). As soon as the sheep got rid of his bonds, he rushed towards the fire into which he threw the swollen part of his eyelid (...) after a moment the sun came out of the fire and began to gradually rise in the sky, and from then on it began to illuminate the earth and the sky. "

Normal's palette, which includes Violet Blue for the moon and night sky, Brick Red and Orangish Yellow for the sun and star, align perfectly with the myth's visual universe. The use of the eye as a symbol, along with the shape of the star sometimes interpreted as the sun, further reinforces the artist's cultural influences and origins. In addition to his use of traditional symbols, the artist incorporates facial Amazigh tattoos in his female figures, as seen in figure 28.



Fig 28 - Normal's inspiration from Amazigh face tattoos

It is evident that the artist's framework for cultural representation relies on four key elements. Firstly, tattoos inspired by the Amazigh culture are prominently featured. Secondly, the inclusion of star and moon motifs. Additionally, Moroccan tiles inspire patterns and repetition within the artwork. Finally, the artist's use of colour, previously determined to be inspired by Moroccan artisanal work, completes the overall composition.

5. Results and Discussion

Understanding the origins and meanings of these symbols, through a qualitative methodology, was crucial in grasping why the artist considers these visual choices as key elements in conveying Moroccan culture. This is due to the existence of a social memory which is a quantum expansion and a historical illustration, becomes the writing of memories dispersed in time. However, it is manifested

through drawings, illustrations, and narrations, which represent the meaning of a social reality always on the run towards other popular or traditional imaginations.

Ayoub Normal's work, heavily influenced by the Amazigh culture, has garnered significant attention due to his distinct colour palette. His use of earthly tones, along with a harmonious blend of warm and cold colours, resonates deeply with local viewers, establishing a strong connection to his art. Noteworthy is the intricate symbolism present in his illustrations, reflecting mysticism and capturing the spiritual essence of Moroccan culture. Upon iconographic examination of the artist's illustrations, it is clear that the female figure plays a crucial role in Amazigh myths. This recurrent depiction often accompanied by star shapes and lunar motifs, evokes ancient Amazigh rituals pre-dating the influence of Islam in the region. Additionally, the star symbol, introduced through numerous conquests in the kingdom's history, has evolved to hold significant cultural, spiritual, and political relevance in Morocco. His work is recognized by this familiar sense of mysticism in his visual universe, which made his artworks not only appealing but also relatable to the spiritual vision of the Moroccan viewer. Rastko Močnik (2004) argues that identity serves as a means of fostering social cohesion within cultures, which in this case, conveyed through visual forms. This cohesion needs to be consistently maintained through different visual components that ensure the artwork's authenticity. Nevertheless, the approaches to achieving this objective can vary significantly among artists. As distinct individuals inhabiting a common cultural milieu (community, space), our interpretations of this collective experience may differ; however, these variations do not entirely negate one another. The artist's aim is to convey their personal experiences through the framework of shared culture while ensuring fidelity to that experience.

Kim Diaz (2006), in the article "Art, Identity, and Everyday Experience," asserts that an artist's creations serve as a mirror, reflecting and reshaping the components of their daily life. This allows the artist to perceive aspects of their own identity within their work, fostering a sense of connection. Ayoub Normal's cultural identity is inherently expressed through the instinctive selection of colors and forms, which have shaped his understanding of self over time. The effectiveness of this translation into visual representation is validated when a community with a shared cultural heritage recognizes and resonates with these artistic elements.

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Nurturing Creativity in Indian Design Education: Insights and a Conceptual Mind Map

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ABSTRACT

This study explores the perspectives of design educators in India on creativity as a critical skill in higher education, particularly in the context of the National Education Policy (NEP) 2020. Analyzing data from 131 educators who participated in a Faculty Development Program (FDP) focused on creativity, the research assessed the current state of creative exploration, interdisciplinary collaboration, and inclusivity in educational institutions. It identified significant gaps and proposed actionable strategies for improvement. A comprehensive mind map was also developed, integrating cognitive strategies, techniques, and traits to enhance creativity among educators and students. While 63% of educators regard creativity as essential, 30% believe their institutions lack sufficient creative thinking tools. While strong support exists for interdisciplinary collaboration (80.2%) and inclusivity (93.1%), 11% of educators report inadequate opportunities for creative exploration. The study emphasizes the need for enhanced training programs to improve educators' proficiency with creative tools, the integration of design thinking and problem-solving methodologies into curricula, and the promotion of interdisciplinary projects to foster collaborative learning environments.

Keywords - Creativity Development, Design Education, Design Educators, Creative Pedagogy, Creative Methodologies.

1. Introduction

The National Education Policy (NEP) of India, introduced in 2020, highlights the essential role of education in fostering holistic development. The NEP envisions an educational system that transcends the mere imparting of knowledge, focusing instead on nurturing creative and critical thinking skills among students. This vision aligns with the policy's broader goal of transforming the educational landscape to meet the evolving needs of society.

In the current era of information gaps and challenges, opportunities emerge to cultivate creative thinking skills. Innovation flourishes when individuals continually question assumptions, generate ideas, and refine concepts through iterative processes. This requires an environment of enthusiastic and supportive individuals who encourage exploration and experimentation (Assink, 2006). Edward de Bono (1970) emphasizes that creativity is integral to innovation and can be developed through practice. Similarly, Torrance (1979) identifies four key attributes of creativity: fluency, flexibility, originality, and elaboration, all of which are essential for enhancing creative abilities.

Design methodologies like Design Thinking and Creative Problem-Solving are particularly effective in creating innovative products, processes, and services that address societal needs. Suneetha & Suresh (2017) argue that creativity is a powerful tool for engaging students in problem-solving, enabling

innovative solutions to social and environmental challenges. Menon & Menon (2017) emphasize the importance of creativity in addressing India's developmental issues and call for greater collaboration and dialogue among stakeholders. Mishra & Pandey (2019) also highlight creative thinking as a means to develop innovative solutions to the challenges faced by rural communities in India.

Urbanization presents unique social and economic challenges, which Singh & Sharma (2018) suggest can be addressed through creative approaches. Jha & Kumar (2017) further stress the importance of community participation in implementing creative solutions, balancing development with social concerns, and leveraging traditional knowledge for innovative outcomes.

Reddy (2023) discovered that among 149 Indian design educators participating in a national Faculty Development Program (FDP) on creative thinking, only 2% were classified as "very creative," with none deemed "exceptionally creative." Approximately 60% were rated as "above average" in creative capabilities. A systematic review by Samaniego et al. (2024) underscores the rising focus on interdisciplinary approaches and experiential learning in cultivating creativity within design education. However, the review also reveals significant gaps in educators' creative capacities, largely attributed to traditional pedagogical methods favoring rote learning over creative exploration.

The OECD (2022) echoes similar findings, noting that while many educators possess "above average" creative skills, they often lack the training and resources required to achieve exceptional levels of creativity. Understanding educators' perceptions of creativity and their familiarity with tools that enhance creative thinking is crucial in addressing this gap.

This study aims to assess design educators' perceptions of creativity, the extent of creative exploration in their teaching practices, and their engagement in interdisciplinary and inclusive collaboration. Additionally, it develops a conceptual mind map of cognitive strategies and techniques to provide a structured framework for fostering creativity within design institutions. Based on this, the study outlines the following objectives:

- Assess design educators' perceptions of creativity as a critical skill.
- Evaluate the current state of creative exploration, interdisciplinary collaboration and inclusivity within educational institutions.
- Develop a comprehensive conceptual mind map that integrates cognitive strategies, techniques and traits to enhance creativity.

2. Research Methodology

The research adopts a descriptive and exploratory approach, using a survey questionnaire to gather data on design educators' perceptions of creativity. The methodology includes reviewing literature on creativity, covering traits, essential attributes, cognitive strategies, and techniques. A comprehensive mind map was created to organize these insights and address gaps in existing frameworks for assessing creativity.

2.1. Participant Demographics and Objective Indicators

The study comprised 131 participants, selected from an initial pool of 200 educators who registered for an online training program on creativity, organized by the National Institute of Fashion Technology (NIFT) in July 2021. This program was supported by the AICTE Training and Learning Academy, under the Government of India. The cohort consisted of 44 men and 87 women, holding diverse roles such as professors, teachers, and lecturers, with professional experience ranging from 0 to 30 years (mean: 10.3 years). Participants represented a range of specializations, including fashion design, accessory design, architecture, engineering, and education, and hailed from 30 distinct educational institutions across India.

2.2. Survey Ouestionnaire

The survey employed a four-point Likert scale questionnaire, with response options ranging from "Strongly Disagree" to "Strongly Agree." The questionnaire was organized into two key sections: general perceptions and specific characteristics of creativity. The present analysis focuses on general perceptions of creativity. Given the exploratory nature of the study, the assessment of the questionnaire's validity and reliability was deemed unnecessary and thus not conducted.

2.3. Data Analysis and Interpretation

The data were analyzed using SPSS, with descriptive statistics employed to identify trends and insights. The results were then visually represented through pie charts, created in Microsoft Excel for enhanced graphical clarity. Additionally, to further illustrate the cognitive strategy development process, a detailed mind map was constructed using MindMeister, an online software supporting visual brainstorming and idea mapping. This tool aided in organizing complex information and highlighting key relationships within the data, providing a comprehensive view of the findings. Assistance from ChatGPT was utilized throughout this process, helping to enhance comprehension of the results and refine sentence structure for improved clarity and coherence, in adherence to APA formatting standards.

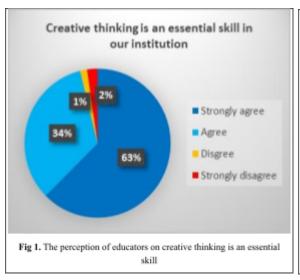
3. Perceptions of Design Educators About Creativity

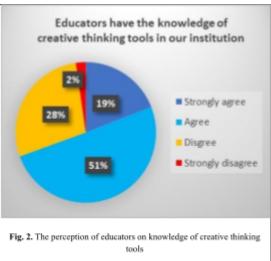
This section explores the significance of creativity in teaching and examines the extent to which educators are equipped with the knowledge and tools necessary to integrate creative approaches into their work.

Fig. 1 displays that most participants (63%) strongly agreed that creativity is an essential skill, while 34% just agreed. A small percentage (3%) disagreed or strongly disagreed, indicating the need for increased awareness about the importance of creativity among all educators. Fig. 2 shows that 30% of educators believed that teachers in their institution lacked knowledge of creative thinking tools.

The findings indicate that while the majority of educators recognize creativity as a crucial skill, there remains a small proportion who do not fully acknowledge its importance. Additionally, a significant number of educators feel they lack knowledge of creative thinking tools, highlighting an existing gap in their familiarity with these resources. These results underscore both the broad acknowledgment of

creativity's value and the notable need for improved knowledge about creative thinking tools among educators





4. Creative Exploration and Collaboration in Design Education

In the pursuit of fostering a dynamic educational environment, understanding how creative exploration and collaboration are perceived and facilitated is crucial. This section presents survey findings on creative exploration and collaboration within the institution. It examines perceptions of challenging tasks, interdisciplinary collaboration, and inclusivity among educators.

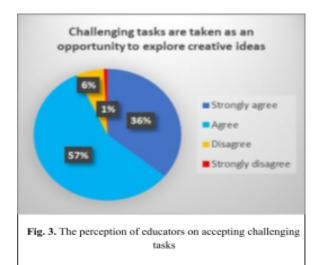
The survey results from Fig. 3 indicate that while a majority of students and employees view challenging tasks as opportunities for creative exploration, there is room for improvement. With 35.9% strongly agreeing and 57.3% agreeing, the level of strong agreement could be higher. The 6.1% who disagreed and 0.8% who strongly disagreed highlight areas where further encouragement is needed. Increasing the proportion of strong agreement could enhance the institutional culture, making challenging tasks a more universally embraced opportunity for creativity and innovation.

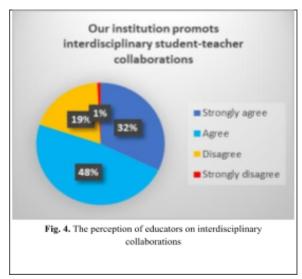
The results from Fig. 4 show that while a substantial portion of respondents (32.1% strongly agree and 48.1% agree) acknowledge that the institution promotes interdisciplinary student-teacher collaboration, there is still considerable room for improvement. The 19.1% who disagreed and 0.8% who strongly disagreed indicate that not all respondents perceive this support equally. To strengthen interdisciplinary efforts, increasing the percentage of strong agreement would foster a more inclusive and collaborative environment across the institution.

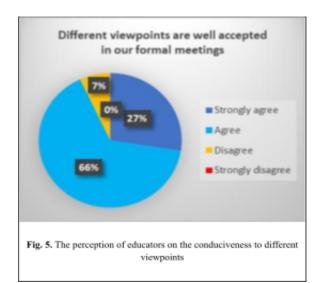
The survey results from Fig. 5 indicate a culture of inclusivity among design educators in formal meetings. A notable 93.1% of respondents (65.6% agreeing and 27.5% strongly agreeing) believe that different viewpoints are accepted in these settings. Only 6.9% disagreed, and none strongly disagreed, highlighting a generally positive environment. This openness to diverse perspectives suggests a

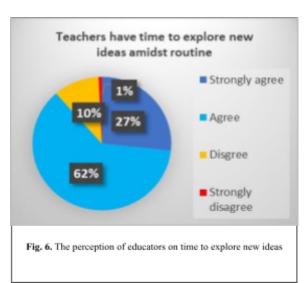
collaborative and supportive atmosphere, crucial for fostering creativity and innovation in educational contexts.

The survey results from Fig. 6 reveal that while many teachers feel they have some opportunity to explore new ideas amid their routines, there is potential for improvement. With 27% strongly agreeing and 62% agreeing, the overall positive sentiment indicates room for greater support. The 11% who disagreed and 1% who strongly disagreed suggest that not all teachers feel adequately supported in this aspect. Enhancing the proportion of strong agreement could better enable teachers to integrate new ideas into their routines, fostering a more innovative and creative educational environment.









Despite the positive outlook, each finding indicates that there is room for improvement. For instance, while many see challenging tasks as opportunities, a smaller proportion strongly agrees, suggesting a need for more robust encouragement. Similarly, the need for enhanced time management and better promotion of interdisciplinary collaboration highlights gaps that need addressing. The common thread across the results is the institution's emphasis on inclusivity, creativity, and collaboration. However, achieving a higher level of consensus and stronger agreement across all aspects could lead to a more uniformly supportive environment, which is essential for maximizing creativity and effective collaboration. The findings from the survey underscore the need for more effective integration of creative thinking tools and interdisciplinary collaboration among educators. While a majority recognize the value of creativity, there remains a notable gap in educators' knowledge of creative thinking resources. Furthermore, though institutions are promoting creativity and collaboration, the varying levels of agreement across different areas—such as challenging tasks, interdisciplinary efforts, and inclusivity—indicate inconsistencies in how these initiatives are perceived and implemented. To address these challenges, a comprehensive conceptual mind map would serve as a strategic tool for enhancing creativity and collaboration in educational settings.

A conceptual mind map can facilitate better understanding and application of creative thinking by visually organizing and connecting key concepts, processes, and tools. Mind maps are known to promote deeper cognitive engagement, making abstract ideas more accessible and manageable. By offering a holistic view of creative processes and their applications across disciplines, a mind map can bridge the knowledge gap identified in the survey, helping educators develop a shared understanding of creative thinking tools.

Moreover, a conceptual mind map can foster interdisciplinary collaboration by illustrating how different fields intersect in creative problem-solving. It encourages educators from diverse backgrounds to see the connections between their disciplines, leading to more collaborative and inclusive educational environments. The use of mind maps has been shown to enhance memory retention, idea generation, and group collaboration, all of which are critical for fostering innovation in educational institutions (Buzan & Buzan, 2010). With these benefits in mind, the development of a comprehensive conceptual mind map becomes essential for fostering creativity in educational institutions.

5. Development of A Comprehensive Conceptual Mind Map

A comprehensive understanding of creativity involves exploring various interconnected components, including cognitive strategies, essential attributes, creativity techniques, design processes, problem-solving tools, and key creative traits. At the core of creative cognition are thinking patterns such as divergent and convergent thinking, which facilitate the generation and refinement of ideas into practical solutions (Runco, 2014). Cognitive strategies such as inductive, deductive, and abductive reasoning guide logical analysis, while far and deep thinking encourages detailed exploration of problem-solving, and lateral thinking addresses issues from unconventional perspectives (Guilford, 1967; Dorst, 2015; Sawyer, 2012).

Creativity techniques, including brainstorming, mind mapping, and lateral thinking, enhance idea generation and foster innovative problem-solving (Puccio, Mance, & Barbero Switalski, 2018). Methods like randomization, welcoming unexpected ideas, and challenging assumptions further promote cognitive flexibility and openness (Michalko, 2006; Kelley & Kelley, 2013). Synthesis in creative thinking involves integrating diverse ideas, concepts, and perspectives to create cohesive and innovative solutions. This process encourages individuals to combine elements from various disciplines, fostering a deeper understanding and the generation of novel insights (Kolko, 2010; Cross, 2011). Effective synthesis not only enhances creativity but also supports the iterative nature of design thinking, where ideas are continually refined and developed through collaboration and feedback (Brown, 2009). By facilitating connections between seemingly unrelated concepts, synthesis plays a crucial role in problem-solving and innovation, enabling educators and practitioners to address complex challenges in more holistic ways (Sawyer, 2012; Dorst, 2015). Design methodology provides a structured framework for translating ideas into practical solutions, involving stages such as research, ideation, prototyping, and testing (Cross, 2011). Design thinking, with its focus on empathy, iterative ideation, and testing, enhances this process (Brown, 2009).

Creative problem-solving tools, such as SCAMPER and Six Thinking Hats, provide structured approaches to addressing complex challenges and exploring diverse perspectives (Cropley & Cropley, 2022). These tools, along with brainstorming, role play, and reverse thinking, enable structured idea exploration and uncover hidden insights (Sawyer, 2012; Osborn, 1953). Additionally, narrative techniques help communicate ideas and inspire creativity, making complex concepts more relatable (Gottschall, 2012).

Essential creative attributes—fluency, flexibility, originality, and elaboration—are essential for fostering creativity. Fluency refers to generating a wide range of ideas, while flexibility involves adapting approaches to suit different contexts. Originality emphasizes novel thinking, and elaboration transforms initial concepts into fully realized outcomes (Guilford, 1967; Torrance, 1974; Morrison, 2007). Nurturing these attributes allows individuals to apply cognitive strategies more effectively.

Moreover, creative traits such as curiosity, open-mindedness, and risk-taking play a critical role in enhancing the creative process (Csikszentmihalyi, 1996; Brown, 2009; Reddy, 2023). Understanding and developing these traits, in combination with cognitive strategies, creativity techniques, and tools, fosters a dynamic approach to creativity, promoting innovation and effective problem-solving across disciplines.

Despite the growing recognition of creativity's importance in education and professional fields, comprehensive frameworks for assessing and improving creative skills remain limited. The following visual representation offers a structured approach to creativity development, addressing this gap and supporting creativity across disciplines.

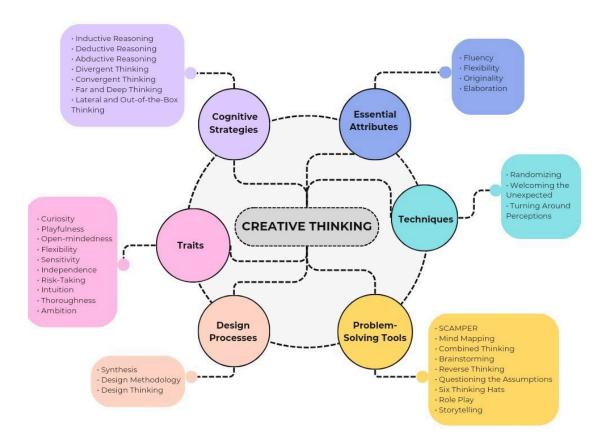


Fig. 7. Comprehensive conceptual mind map for awareness and identifying areas for improvement in creative thinking.

Although the significance of creativity in education and professional practice is widely acknowledged, a comprehensive mind map for assessing and improving awareness of creative methodologies remains lacking. The provided pictorial representation aims to address this gap by offering a visual tool to enhance understanding and application of creativity. This mind map serves as a valuable resource for educators, professionals, and students seeking to deepen their engagement with creativity and optimize their problem-solving approaches.

6. Conclusions

This study highlights the vital role of creativity in Indian design education, aligning with the objectives of the National Education Policy (NEP) 2020. Findings indicate that a majority of educators (63%) recognize creativity as an essential skill, with an additional 34% agreeing on its importance. However, 30% of educators feel their institutions lack sufficient knowledge of creative thinking tools. While many educators view challenging tasks as opportunities to foster creativity, there remains scope for stronger consensus. Although 80.2% acknowledge the encouragement of interdisciplinary collaboration, 19.1% do not, suggesting a need for further institutional support. Inclusivity appears strong, with 93.1% of educators feeling that diverse viewpoints are welcomed in formal meetings; however, 11% still feel inadequately supported in exploring new ideas.

The conceptual mind map developed in this research integrates cognitive strategies, creativity techniques, essential attributes, and key traits to enhance creativity among both educators and students. This structured tool helps identify gaps and develop creative skills critical for addressing contemporary educational and societal demands.

These findings underscore the need for enhanced training programs to boost educators' proficiency with creative thinking tools, the integration of design thinking and problem-solving methodologies into curricula, and the promotion of interdisciplinary projects to enrich collaborative learning. Such measures can help bridge existing gaps, foster an innovative educational culture, and better prepare students to meet future challenges with creativity and resilience.

Educators can effectively use the mind map in curriculum design and classroom activities, enhancing students' creativity and problem-solving skills. By embedding components such as cognitive strategies, creativity techniques, and key traits into course outcomes, educators provide a pathway for students to develop skills like flexibility, originality, elaboration and fluency. Activities centered on brainstorming, lateral thinking, and synthesis encourage hands-on learning and active engagement. Problem-solving workshops using tools like SCAMPER and "Six Thinking Hats" foster diverse perspectives. Collaborative sessions structured around mind mapping and brainstorming promote team-based ideation. Altogether, the Comprehensive conceptual mind map serves as a valuable resource in design education, supporting the development of creative skills.

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WORLD UNIVERSITY OF DESIGN

The Iconography of Dr. B. R. Ambedkar: The Symbolic Means in Visual and Design Culture

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ABSTRACT

The Iconography of Dr. Bhimrao Ramji Ambedkar (1891–1956) is a subject of significant scholarly interest, delving into various aspects of his life, work, and influence. Ambedkar's impact on society, particularly formerly untouchable communities, has been a focal point in understanding the dynamics of caste, politics, and community life in India. His writings on Buddhism, social democracy, and the role of education in fostering democratic values have been subjects of in-depth analysis. Scholars have explored themes such as sovereignty, caste, agonism, Buddhism, politics, and the context of social and cultural practices surrounding his life, experiences, and decisions through an analytical lens. Studies have also shed light on Ambedkar's iconography and its historical and political significance, tracing the evolution of his image and statues from a period predated by his current veneration. His iconography has been studied in the context of art, literature, and cultural productions, and it serves as a rich tapestry of historical, political, and sociocultural narratives. Still, his image and symbolism in contemporary society, reflected in multiple mediums and forms, have not been captured coherently. This study of selected contemporary creative works sheds light on symbolism, visual, and design culture, focusing on Ambedkar's iconography with a relevant literature review.

Keywords - Iconography, Symbolism, Visual Culture, Design Culture, Fine Arts. B. R. Ambedkar.

1. Introduction

Visual culture as an academic discipline emerged in the 1990s, and its core idea is investigating the relationship between the viewer and the viewed (Julier, 2006, p. 64). According to Koh, cited in (Julier 2006, 70), "Design culture is located in communication." It is both something designers do and something around us created to serve a function. Iconography deals with the meaning of the visual image rather than its form and goes beyond the discipline of visual aesthetics. Born into the Mahar caste, one of the lowest social groups in India, Dr. Bhimrao Ramji Ambedkar's (1891–1956) life and work has been instrumental in challenging oppressive caste practices (Blodgett-Ford, 2021). His Iconography holds significant symbolic meaning in visual and design culture, reflecting a complex interplay of historical, social, and political contexts.

Ambedkar's image as a champion of social justice and equality is deeply ingrained in the collective consciousness, with his ideas resonating strongly with marginalized communities (Lone, 2022)-their art practices and the visual culture they subscribed to. Mainly among the Dalits in various regions of India, there has been a noticeable increase in the presence of images and Sculptural installations related to Ambedkar, reflecting a growing assertion of Dalit identity and pride (Husain, 2023). His contributions

to the framing of the Indian Constitution underscore his pivotal role in shaping the legal and political landscape of the country (Tiwari, 2017). His vision extended beyond mere political activism; he firmly believed in the transformative power of education to instill values of unity, equality, fraternity, and patriotism among individuals, irrespective of their social backgrounds (Sangole, 2022). His emphasis on equality and inclusion in education has been a cornerstone of his envisioned societal transformation, advocating for a rethinking of educational systems to address issues of deprivation and inequality (Idika, 2023).

Ambedkar's interactions with Mahatma Gandhi, particularly during the Poona Pact of 1932, have been subjects of scholarly study, highlighting the complexities of their engagement (C. B. Kumar, 2024). In scholarship and democracy, his ideas resonate strongly, focusing on justice for the marginalized and education as a tool for fostering democracy (Zene, 2018). Ambedkar's contributions are not limited to social and political spheres but also extend to economic philosophy, where his ideas have left a lasting impact on our society (Bose, 2023). This shift in perception highlights the changing societal attitudes towards Ambedkar and the growing recognition of his contributions as a sociopolitical and religious reformer, particularly within India's Dalit community (Mukerji, 2020). The Visual and Design works that show evidence of such endeavors are discussed in the following sections. The iconic image of Ambedkar, often depicted as a Western-dressed gentleman pointing towards the future while carrying a book, has become a ubiquitous symbol in villages and cities across India, signifying his enduring influence and legacy (Zelliot, 2008).

Dr. Ambedkar's iconography of various aspects, including his image, personality, and ideology, signifies social aspirations that embody the struggles and transformation of marginalized communities in India. The visual and design culture surrounding his image is a powerful reminder of his enduring legacy and the ongoing quest for a more just and compassionate world. Over time, there has been a noticeable evolution in the representation of Ambedkar's image, transitioning from a period of relative obscurity to widespread veneration and idolization (Ankit, 2023). Ambedkar's image and symbolism reflect a multifaceted legacy encompassing social, political, economic, and educational dimensions. It is a subject of significant scholarly interest, delving into his life, work, and influence. Therefore, the second section of the article sheds light on scholarly works on his Contributions. The third section examines the symbolism and interpretation of Ambedkar's image. The fourth section covers a few examples of creative domains, including design. The fifth section reflects on a few cases from contemporary critical art practices. The sixth section concludes by analyzing its relation to society and culture.

2. Scholarly research on Ambedkar's Works contribution

Research works have highlighted his vision for a more inclusive and just society, emphasizing the need for systemic changes to address deep-rooted inequalities and social injustices (Khiamniungan, 2023; Patil, 2022). These studies explored themes such as sovereignty, caste, agonism, Buddhism, politics, and the social-cultural context surrounding his conversion from Hinduism to Buddhism through an analytical lens and shedding light on the historical and political significance of Ambedkar's Iconography, tracing the evolution of his statues from a period predating his current veneration (Ankit, 2023; Awad, 2022; Kapila, 2019). Scholars have examined how his ideologies and actions have influenced the empowerment of marginalized groups, the struggle for equality, and the quest for social justice. Through his efforts in social reform, education, and legal advocacy, Ambedkar challenged

caste-based discrimination and elevated the status of oppressed communities (Singh, 2019; Thiranagama, 2019; Vajpeyi, 2016). Ambedkar's impact on society, particularly formerly untouchable communities, has been a focal point in understanding the dynamics of caste, politics, and community life in India.

Ambedkar's contributions to Indian society, especially in the realms of democracy, law, and social transformation, have been widely acknowledged. His role in shaping the Indian Constitution, advocating for minority rights, and challenging oppressive social structures has been a cornerstone of academic inquiry. Scholars have examined his views on democracy, constitutional morality, and the intersection of law and social justice, highlighting his enduring legacy as a champion of the marginalized and a visionary leader (A. Kumar, 2010; Nathi, 2018; Nisar, 2020; Ramesh, 2022; Zelliot, 2008). Through critical analysis of his portrayals in different forms of expression, researchers have sought to capture the essence of his message, the complexities of his persona, and the enduring impact of his legacy on diverse audiences (Husain, 2023; Momen, 2024; Schaaf et al., 2022). Additionally, the Iconography of Ambedkar has been studied in various forms in Art, literature, and cultural productions. His representations in various mediums reflect his historical significance and the ongoing resonance of his ideas in contemporary society, which serves as a rich fusion of historical, political, social, and cultural narratives.

3. The Iconography of Dr. B. R. Ambedkar in the Creative Domains

The evolving Iconography of Ambedkar serves as a testament to the enduring legacy of social reform and the ongoing struggle for equality in diverse artistic landscapes. Ambedkar relentlessly fought against all forms of discrimination in every possible way he could. Besides being the chief architect of the Indian Constitution, his vision of an egalitarian society has been the driving force for several welfare schemes and measures that eventually become a reality, be it a maternity benefit for women, the protection act of women and child labor, or medical care, compensation for injury, and insurance. The socio-religious reforms he envisaged in organizing workers to challenge the caste system and the discrimination in the workplace have led to solid labor laws, remunerative wages, legitimate working hours, housing, water supply, and education. Besides these roles, he was essential in introducing many Acts, Commissions, Constitutional bodies, Finance, electricity, and water management policies. Unfortunately, in public discourse, we observe his role as narrowly confined by some sections of society to aspects like the Constitution or championing the reservation system, undermining his immense contributions to society.

On the other hand, his admirers and followers, whose lives were significantly impacted by Dr. Ambdekar's efforts to establish human dignity and equality struggle, have created numerous statues of him and celebrated him in various forms as a gesture of reverence. The French anthropologist Nicolas Jaoul meticulously analyzes the symbolic significance of Ambedkar statues in Uttar Pradesh, shedding light on the complex interplay between Dalit politics, social change, and state dynamics (Jaoul, 2006). He states, "Although Ambedkar had warned his admirers (against) making a cult of his personality, a move had started in his home state of Maharashtra even before his death." Ambedkar's statues are the second largest after Mahatma Gandhi (The Father of the Nation) in the country, and their representations are as diverse as cultural variations across different regions (Jaoul, 2006).



Fig 1: The statues of Dr. B. R. Ambedkar images representing him in an immaculate three-piece suit



Fig 2: The statues of Dr. B. R. Ambedkar are painted in various metallic shades







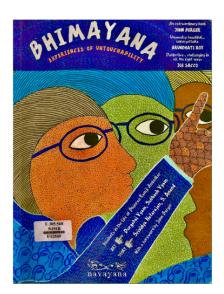
Fig 3: Rituals of purification with milk (recreated collage with open-source images from the web)

After his death, he became a symbol of political solidarity. Struggling for dignified space in the social structure has almost become a central issue of all Dalit movements. The hand with its upraised index finger carries more specific significance in Indian classical arts. Perhaps Ambedkar has chosen this 'mudra' (teaching gesture) to mark every page of his great work, 'The Buddha and his Dhamma.' Within Navayana (neo-Buddhism), it has a generalized significance as a teaching gesture (Tartakov, 2000, p. 102). We can see the statues of Ambedkar in every locality of deprived people and revere the image of their salvation in their house alters. Even though they are from poor backgrounds, they enthusiastically contribute to installing Ambedkar statues in their neighborhoods and purify them with milk during anniversaries. Garlanded, painted them like precious metals.

Delving into the intricate interplay between the Iconography and its visual representation is critical. That offers a nuanced understanding of how the image has been constructed, deconstructed, and reconstructed across various artistic mediums, thereby shedding light on the socio-political significance embedded within these visual narratives (Ali, 2018). Contemporary religious murals, often overlooked in art historical studies, offer a unique perspective on popular visual culture and Iconography (Sathish, 2014). These murals, rooted in religious traditions, serve as visual storytelling that transcends conventional art historical confines. Scholars uncover a rich tapestry of cultural expressions that challenge traditional notions of artistic canon and historical narratives by exploring the themes and motifs depicted in temple murals.

Theoretical frameworks on caste as a socio-psychological construct shed light on the intricate dynamics of identity formation and collective consciousness within society (Pal, 2024). The theoretical expositions on caste underscore the resilience of social groups in maintaining collective identities amidst perceived threats. These theoretical insights provide a lens to analyze the complexities of caste dynamics and the enduring legacy of social hierarchies in modern times. In contemporary Art, the fusion of music and visual expressions gives rise to new forms of artistic engagement and interpretation (Barrett, 2021). One can unravel the layers of meaning and cultural connotations associated with the iconic persona by studying the visual elements, symbolism, and artistic techniques employed in representing Ambedkar's personality. The visual analysis can be enriched by drawing insights from studies that explore the intersection of Art, politics, and identity.

Research on Dalit-Bahujan calendar art in North India provides a valuable framework for understanding how visual representations serve as a form of resistance and cultural assertion for marginalized communities (Kalyani, 2022). Within the context of Dalit visual Culture, one can discern how his image is utilized to challenge dominant narratives and empower subaltern voices through visual means (Gautam, n.d.). The aesthetics and politics of Dalit representation in Art are intricately intertwined, as seen in works like "Bhimayana: Experiences of Untouchability" (Rajendran, 2021) is another excellent example. This graphic novel is drawn in Parbhan Gond style by Durgabai Vyam and Subhash Vyam, and Srividya Natarajan and S. Anand, author of it, published by Navayana (Figure 7).



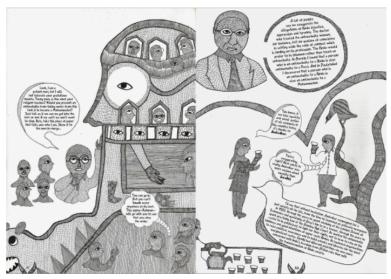


Fig 4: Bhimayana: Experiences of Untouchability (2011), (Right) a spread from the book

Weaving history with contemporary issues—the book's premise starts with a conversation between two youngsters at a bus stop. It touches upon many instances of Ambedkar's childhood, including a take on the reservation and caste-based discrimination. The visual style goes beyond mere illustration, offering a profound aesthetic response to identity and social exclusion challenges. These artistic endeavors depict the harsh realities of caste-based discrimination and serve as a form of resistance and cultural assertion. Adopting Gond art in graphic novels like Bhimayana presents a compelling case examining the fusion of traditional artistic forms with contemporary visual storytelling techniques (Jaoul, 2012). Through a visual analysis of such works, one can explore how folk art enriches the narrative's visual aesthetics and imbues it with cultural authenticity and symbolic resonance. Blending artistic traditions underscores the dynamic nature of visual representation and its capacity to convey complex narratives and historical legacies.

Through a meticulous analysis of the visual elements in Bhimayana, one can uncover how artistic choices contribute to the narrative's thematic depth and emotional resonance. The intersection of politics, literature, and visual representation converges in graphic novels that explore themes of solidarity and subaltern identities (Chaturvedi, 2020). The visual analysis of Ambedkar's Iconography necessitates a critical engagement with the evolving representations of his image over time. Ambedkar's

Iconography and its aesthetic and political dimensions can be further elucidated by examining the abstract line work in graphic representations of his life and struggle (Saha, 2022).

Likewise, 'The Boy Who Asked Why' Story by Sowmya Rajendran, Pictures Satwik Gade, is a stunning account of Dr. Ambedkar and his painful childhood incidents that raise relevant questions (Figure 5). The author's approach in this work is candid and touches upon several unjust practices that affected Ambedkar's life. The images playfully capture the essence of those questions that affected the innocent mind of childhood.



Fig 5: 'The Boy Who Asked Why (2015), (Right), a spread from the book by Tulika Books.

The content covers the significant incidents of Dr. Ambedkar and his struggles with a question to the reader. The third example of the picture book that captures Ambedkar's love for books is 'B. R. Ambedkar: A Life in Books by Yogesh Maitreya, Illustrations by Nidhin Shobhana (Figure 6). The book brilliantly communicates how books were the only companions that Ambedkar grew up with in the absence of many friends. He was drawn to various books that offered salvation since childhood. He could get answers to many questions he had in his mind, making the books his best companion and teacher.

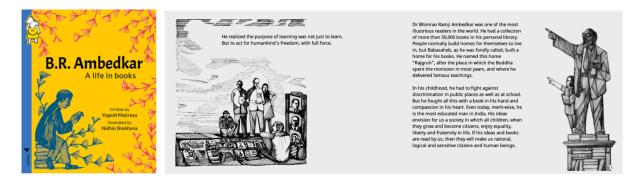


Fig 6: 'B. R. Ambedkar: A Life in Books, (Right) a spread from the book by Pratham Books

Other creative works of Yogesh Maitreya cover stories like 'Flowers on the Grave of Caste' and essays on language, literature, and cinema, such as 'Of Oppressors Body and Mind.' The Meaning and Loving and Hurt featured 32 portraits of Dr. Ambedkar, some of the relevant visual design works to mention. Through graphic narratives, Ambedkar's political philosophy and advocacy for social reform are

brought to life, resonating with audiences across diverse backgrounds. Political cartoons on platforms like Facebook have become effective tools for communicating sociopolitical scenarios in India, resonating with the population and contributing to political discourse (Chakraborty & Chowdhury, 2021).

Dalit cinema emerges as a potent tool for challenging caste hierarchies and amplifying Dalit voices in mainstream narratives (Herrero, 2021). Through visual storytelling and cinematic expressions, Dalit filmmakers strive to dignify Dalit subjectivities, critique social norms, and inspire sociocultural change. The cinematic medium becomes a platform for reclaiming narratives, challenging stereotypes, and fostering dialogue on caste identity and representation. The rich tapestry of Tamil cinema further enriches the discourse on caste identity and representation in filmmaking (Shweta, 2022). Tamil cinema, known for its diverse narratives and nuanced character portrayals, offers a platform for exploring Dalit experiences and outlooks. Through cinematic storytelling, issues of caste discrimination, social justice, and identity politics are brought to the forefront, engaging audiences in critical reflections on societal norms. Contemporary art draws inspiration from historical avant-garde practices, emphasizing discursive meaning and social processes. The interplay between music and visual Art challenges traditional boundaries, inviting audiences to engage with Art in multifaceted ways that transcend conventional mediums.

4. Contemporary Art Practice, Artist and the society

After the text edit has been completed, the paper is ready for the template. Duplicate the template file by using the Save As command. In this newly created file, highlight all of the contents and import your prepared text file. You are now ready to style your paper; use the scroll down window on the left of the MS Word Formatting toolbar. Ambedkar's profound insights on caste, democracy, and state action offer valuable resources for contemporary democratic theory and social activism (Ramesh, 2022). Exploring Ambedkar's iconography in contemporary Art unveils a complex tapestry of cultural expressions, political narratives, and social critiques. Through visual representations, literature, cinema, and performing arts, artists, and creators engage with identity, resistance, and social change themes. Through contemporary and traditional art practices, artists and writers have engaged with Ambedkar's legacy to address broader issues of representation, power dynamics, and the complexities of social hierarchies. For example, in the realm of performing arts, the 'visibilization' of caste through Bharatanatyam performances sheds light on the representation of Dalit figures like Nandanar (Ramaprasad, 2024). These artistic expressions celebrate Dalit cultural heritage and challenge traditional narratives within classical art forms. By incorporating Dalit narratives into mainstream cultural practices, artists redefine notions of inclusivity and diversity in the performing arts landscape.

Nevertheless, in Contemporary art practice, Artists express their concerns and communicate with society in diverse forms through traditional mediums like Stone, Bronze, or even drawing. Even though communication is the most critical aspect of such artwork, expression and agency are two factors that give voice to an artist's communication. Therefore, the artworks are conscious statements, and art-making is a socially responsible act rather than a mere communication exercise. Art is fundamentally expected to reflect, revolutionize, and transform society. So, art-making and sharing with society aids the multidimensional dialogues between the creator and the responder. In other words, the viewer becomes part of the meaning-making process. By delving into such expressions, we gain deeper

insights into the complexities of caste, representation, and empowerment in contemporary society. The following cases show the intricacy of the medium and the message.

4.1. Case 1: 'The Fall' (2008)

The Fall is a sculptural Installation of Arun Mascarenhas in Black marble. The installation size is approximately $48" \times 24" \times 9$." The tagline reads, "The moving, the pointing, the admonishing, the directing, and the... the finger has fallen, the body has lost its meaning."





Fig 7. The Fall (2008) Sculptural Installation of the Artist

The representation of the fallen index finger is the central idea of the sculptural Installation (Figure 8). The Installation's Size, medium, and display context are crucial. The size of the finger is about a meter, and it is installed in a manner with a few pieces of splintered stone due to the impact of the Fall. The display on the ground mimics the fallen finger from an enormous (imagined) statute subjected to vandalism. Contradictory of the display in a conventional gallery space, without a pedestal to elevate the form to the viewer's gaze.

When the viewer encounters the Installation, once they are convinced of the Artist's choice of display, they may be intrigued by the artist's intent. Identifying the subject as a pointing finger, one can relate the work's representation and subject to the most recognizable gesture of Dr. Ambedkar with a raised hand pointing the index finger to a distant future. The most significant part of the iconic statue is its directing finger, which is separated from the body, which evokes a feeling that the statue has lost value due to vandalism. It may provoke the viewer whether you are an observer outside the context set or an active insider responsible for harm. The fallen finger can serve as a metaphor for the Fall of moral values or the direction of society, which he denounced. It also could serve as a critical statement on the mindless ritualistic act of his followers, who do not understand his aim but indulge in meaningless practices. The medium black stone is also crucial to the idea, as it complements the notion of ostracizing the oppressed class the world over and allows the viewer to feel the breakage and its impact, adding several layers of interpretations around the work. The Installation's title and short tagline further direct the viewers to the layered meaning-making process. The Installation's visual statement may become metaphors for society's broken, alienated moral values, indulging in lesser critical aspects like the statue's size, painting them in gold, washing them with milk, and even celebrating his birth anniversary as a festival but not practicing his core ideals.

4.2. Case 2: 'The Annihilation of Cast (2015)

The drawing titled 'Annihilation of caste' by Arun Mascarenhas was a preliminary sketch first published on social media on the 124th birth anniversary of Ambedkar on Apr 14, 2015. (Figure 9). It was drawn at the request of a mentor, in a manner with an outstretched right arm projecting the copy of the essay titled 'Annihilation of caste' like a placard instead of a pointing finger gesture. It's a small drawing on paper measuring 8" ×10." The iconic posture of Dr. Ambedkar with the raised arm is the central idea of the drawing. The left hand still holds a copy of the Constitution. However, unlike other examples, the right arm in the drawing shows his critical essay as a placard. The drawing, through an unconventional posture, draws the attention of the viewer to the essay and the subject. The implicit statement that the drawing makes is the caste system and its ill effects on society, which is more crucial than the Constitution itself. Dr. B. R. Ambedkar is recommending something more vital to society. It's a powerful visual statement that the piece of drawing invokes.



Fig 8. 'The Annihilation of Cast (2015)

The person admired as the architect of the Indian Constitution is now putting forth some other text that is more important. It is essential to give detailed incidents of the essay and its trailing arguments that

become a medium for both great personalities to exchange their view on society. The essay was a seminal work of Ambedkar, written basically as a speech on the caste system in India to be delivered at the annual conference of Jat-Pat-Todak Mandal (Society for the Abolition of Caste system), an anti-caste organization based in Lahore in 1936. Owing to the sharp differences with the organizers on omitting a few sections from the written speech planned to circulate after the speech, Ambedkar chose not to attend the conference but to publish his speech as a book. The core idea of the essay was on the sociology of religion, which is crucial in analyzing Indian society. Religion has often been regarded as a vital variable that gave direction to Indian society (Thapar, 2004). Dr. Ambedkar constantly criticized the Hindu caste system and its biased law books. He argued that inter-caste dining and inter-caste marriage were not sufficient to eradicate the caste system but that the fundamental method of breaking up the Caste System was to destroy the religious notions upon which caste is founded.

In response to Ambedkar's address on caste, Mahatma Gandhi commented in the same year in his article titled 'A Vindication of Caste.' In his weekly journal 'Harijan' in July 1936. Ambedkar promptly replied to Gandhi's comments in the second edition of his book, which was published in 1937 as 'Annihilation of Caste: With a Reply to Mahatma Gandhi.' He also published a third edition in 1944 that included another essay, 'Castes in India: Their Mechanism, Genesis and Development,' presented at a seminar in New York in 1916. Annihilation of Caste was translated into Tamil with the help of Periyar Ramaswamy Naikar, a famous Tamil social reformer and a ruthless critic of Brahmanism, and published in 1937. The Segments were continuously published in the rationalist Tamil magazine Kudi Arasu. In 2014, Nava Yana, a New Delhi-based publishing house, released an annotated edition, with an introduction by Arundhati Roy, entitled 'The Doctor and the Saint" ("Annihilation of Caste," 2024). In both cases above, his showing direction or admonishing blended with a contemporary message communicated through his familiar Iconography in society. As Dr. Ambedkar has rightly said, "Men are mortal, so are ideas. An idea needs propagation as much as a plant needs watering; otherwise, both will wither and die."

4.3. Case 3: 'Dhamma Swaraj' (2018)

The Dharma Swaraj is Riyaz Komu's oil painting on Canvas (Figure 9). It's a triptych with three panels of 6'X4' canvases. It was part of the solo show' Holy Shiver' at Vadera Gallery, New Delhi, 2018. He has been a strong proponent of the idea that Art should speak of our time and considers them an archive of our times. Compelling visual language is reflected across artworks created in various mediums. Komu used diverse mediums to break the boundaries of genres like Sculpture and painting. He has been using the images of Dr. Ambedkar and Mahatma Gandhi in his expressions. Both personalities had the same goal of an independent nation. They contributed significantly in different roles, yet they had different ideologies still in dialogue, which is the work's central theme.

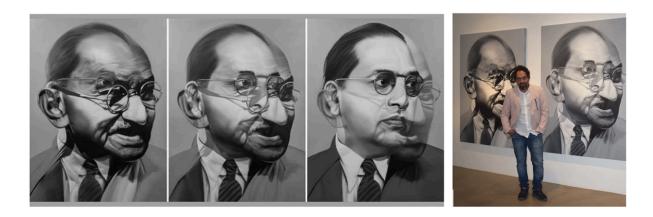


Fig 9: The triptych' Dhamma Swaraj,' image of the artist in the solo show, Holy Shiver, Vadera Gallery, New Delhi

In the intriguing triptych' Dhamma Swaraj,' he uses the iconic images of both leaders to juxtapose them to evoke a feeling of transition from one to another like a holographic image. It is the Artist's response to the changing ideologies of the state. It reflects the debates prevalent in the Indian socio-political space and our times. Fusing both words Dharma and Swaraj, which are associated with Ambedkar and Gandhi, respectively, brings semiotic and semantic dimensions together in the work through the title.

4.4 Case 4: 'Fourth World' (2019)

The artwork 'Fourth World' is a sculptural installation of Riyaz Komu in Bronze Cement Concrete. Installed permanently at Nirox Foundation Sculpture Garden, Johannesburg, South Africa. The Installation Dimensions is approximately 9'×20'×20.' As Menon puts it, it "brings together the politics of the word, history, and symbolism," in the Installation, the artist "is building a history of the present, compelling us to think about all its terrors, possibilities and betrayals" (Menon, 2019). The Installation at Sculpture Park in the 'Credle of Humankind' has four plinths of different heights aligned with the cardinal directions. The east and the west have statues of Dr. Ambedkar installed on opposite plinths, showing back to each other on unequal-sized plinths. The other two plinths that are of similar height are unoccupied (Figure 10).

However, unlike the previous examples, the statutes do not hold a copy of 'the Constitution of Inda,' not pointing to 'some distant future' or 'the temple of democracy.' But it is conversing, with both hands slightly raised, as if he is explaining something to the audience in the east and west directions in the world. The vacant plinths of the north and south are still open spaces for similar issues that have yet to be addressed or represented. The Installation's location and context are also vital because it is outside India. In India, his statues and images are deployed as political gestures and symbols of reverence. Socially sensitive subjects are often avoided in mainstream practices, expressed through symbolism and abstraction. The transnational space of the Installation opens a dialogue on unrealized equality, bringing together distant conversations of similar concerns.





Fig 10. 'The Fourth World' (Image courtesy Dilip M. Menon)

The Installation offers an intimate space to the viewer, invited for a dialogue on the future and the past that is forgotten. Ambedkar was treated as untouchable even after being the most educated in the country at his time, and he suffered indignities; his position and experiences are unique and valuable for the conversations he invokes. His writings reflect that the dialogue on inequality has to be part of the global conversation, where Dalits must be placed along with other deprived people and societies. In the Installation, Komu captured the essence of reaching beyond borders and narrow notions through the statue's exhortative gesture. Notably, the Installation does not have a book of the Constitution as a part of the statue. It's a statement that debunks the notion of confining him and his struggles to the history of legislation and debates around the clauses and schedules on reservations for attaining an equal society.

5. Conclusion

In conclusion, the political landscape in India is deeply intertwined with symbolic representations, from statues and symbols to historical emblems and cultural icons. These symbols reflect power dynamics and historical narratives and serve as tools for asserting identity, negotiating relationships with the state, and shaping public discourse. Understanding the intricate web of social, Cultural, and political symbolism in Indian art and design or public art is essential for comprehending the complexities. Its social fabric and the evolving dynamics of power and depiction. Symbols in art and design domains are potent communication, expression, and cultural preservation tools. They convey resistance to cultural heritage and foster cross-cultural dialogue and innovation, shaping artistic expressions and societal narratives. Accepting the significance of symbols in art requires an appreciation of their cognitive, emotional, and cultural dimensions, underscoring the interplay between creativity, symbolism, and human experience.

As a part of design culture, public sculptures or public art have been used as statements and memorials. They allow deep analysis of complex, creative elements as an academic endeavor. Due to their instant connection with the viewer, they have an enormous impact that gradually transforms society. A simple yet strong communication requires a thought process rooted in the living and its relationships. Over the past few decades, our lifestyles have drastically altered; social media and digital modes of

communication have created further gaps in our attitudes toward our fellow cohabitants. Emotional exchanges occur at a distance and have become vivid and fast; a considerable part of communication is through visual symbols and gaze. We cannot overlook the complexity of our time; without studying and analyzing what surrounds us and how it impacts society, we seldom find meaning.

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Reconceptualizing Vaastu Shastra Principles in Light of Modern Architectural Practices in India

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Abstract

With an emphasis on the dynamic interaction between traditional knowledge and modern design, the study investigates how Vaastu Shastra is changing to satisfy the modern architectural landscape. The abstract seeks to illuminate the creative methods architects are using to balance traditional knowledge with the requirements of contemporary design in India's architectural scene by looking at how these traditional concepts are being reinterpreted and integrated. This study examines how modern building approaches in India are blended with the ancient Hindu discipline of architectural design known as Vaastu Shastra. Vastu Shastra stresses designing areas to maximize natural light throughout the day, taking into account how the Sun moves in relation to the building. Though there are distinctions, there are also similarities and variations between Vastu Shastra principles and modern construction processes, despite the fact that modern buildings follow local building codes inspired by technology advancements. As a result, an effort has been made to incorporate traditional Vastu Shastra ideals into current house design approaches in order to improve both human well-being and environmental sustainability. This brief analysis identifies parallels and makes recommendations for implementing these concepts into social development programs.

Keywords-Vastu Shastra, Contemporary Building Techniques, Design Principles, Alignment, Construction practices.

1. Introduction

According to Mayamata, vaastu is the peaceful cohabitation of immortals and humans. A set of ageless rules known as Vaastu Shastra includes instructions for building Hindu temples and palaces as well as for designing homes, villages, cities, gardens, roads, waterworks, shops, and public areas. Around 3000 BC, Vastopati is mentioned as the family defender in the Rig Vedas, which is where Vaastu Shastra first appeared. Even though many ancient documents have been lost, two prominent instances of how Vaastu Shastra was used in later works are the epics Ramayana and Mahabharat.

This research explores the design of living spaces, whereas Vaastu Shastra has traditionally focused on temples, palaces, and homes. The site, site analysis, measuring systems, orientations, schematics, offerings, villages, and other settlements are the main subjects of the study. When constructing a dwelling unit, every detail is carefully considered, including the number of levels, size, foundations, deposits, socle, door features, and rehabilitation work. Vaastu Shastra principles were meticulously followed in the construction of ancient towns such as Indraprastha and Dwarka.

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The concept of housing is broad, and categorized into four aspects:

- 1. The Earth/Site (Bhoomi) the foundational dwelling place.
- 2. Building (Prasada) the structure erected on the earth.
- 3. Conveyances (Movable Objects) Yaana.
- 4. Furniture Sayana.

It is recommended that when choosing a residential site, one should evaluate it using the principles of Vastu Shastra, taking into account elements like color, odor, flavor, form orientation, sound, and physicality. It is important to remember that different castes may have different criteria for choosing a dwelling site. There are two types of sites: primary sites, which include the earth itself, and secondary sites, which include towns, halls, houses, light structures, and palaces, all of which are collectively referred to as structures. Conveys include different forms of transportation, such as litters, carts, carriages, war chariots, and Anika, while seats include thrones, divans, chairs, aviaries, beds, and cradles.

By utilizing the five fundamental elements—earth, water, fire, air, and space—as well as taking into account the Earth's magnetic field and the motions of the Sun, Moon, and planets, Vaastu Shastra provides guidelines for structure construction. These guidelines seek to balance the effects of the sun, wind patterns, Earth's magnetic field, and the planet's cosmic influences. The following are the five main tenets of Vaastu Shastra:

- 1. The Doctrine of Orientation (Diknirnaya)
- 2. Site Planning (Vaastu Purusha Mandala)
- 3. Proportional Building Measurements (Maana)
- 4. The Six Canons of Vedic Architecture (Aayadi)
- 5. Building Aesthetics (Chanda).

Vastu principles have evolved over time, incorporating traditional building materials, local construction techniques, and architectural details that adapt to local conditions, including climate and available materials.

2. Rational Insights into Vastu Shastra: Adapting to the Modern World

The interaction between people and their homes is at the heart of Vastu Shastra, an ancient body of knowledge that governs spatial layouts. Even though Vastu Shastra contains a wealth of knowledge that was previously undiscovered, it remains mysterious. Our understanding of Vastu is limited since ancient wisdom is typically applied and interpreted imprecisely in contemporary culture. However, some phenomena, like the Sun's natural rising and fall, never change.

Similar to an internal compass, humans have an innate sense of direction. Our brain's "place cells" come into play when we visit a certain location, creating a cognitive map that reacts to position, orientation, and spatial direction. The Earth's natural magnetic characteristics have shaped its geostationary orbit around the Sun for billions of years. The compass needle always points north due to this magnetic

force, which is equivalent to the Earth's permanent magnetic field. This gives the Vastu Shastra principles, which are founded on directional alignment, a sense of permanency.

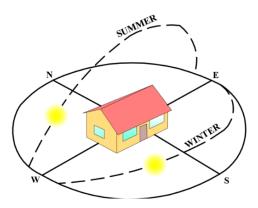


Fig 1 Solar path during a day in winter & Summer season.

Source:https://www.ijert.org/research/evaluation-of-bioclimatic-principles-in-design-of-office-building-in-hot-dry -climate-region-of-nigeria-IJERTV9IS040506.pdf

Vastu Shastra places a strong emphasis on directions; the eight cardinal directions are represented by the eight sectors of the 24-hour solar day. Every segment represents a cardinal direction in which the Sun is located throughout the day. Considering how important sunlight is to human health, Vastu Shastra's main goal is to make sure that a home's occupants have enough exposure to healthy sunlight throughout the day, even when they're indoors. But because people do different things in different rooms at different times and the Sun moves from sunrise to sunset, it is necessary to align each room to get sunlight at the times when it is most likely to be used.

For example, the Sun is in the north and northeast between 3 and 7:30 in the morning. During this time, morning light is thought to be quite healthy. To optimise solar exposure, it is advised that this region be kept clear of obstructions. Additionally, this era is marked by peace and quiet, which emphasises how crucial it is to use natural light for overall well being. Therefore, in order to foster harmony and balance in contemporary living spaces, architectural design must be in accordance with Vastu Shastra principles. Additionally, this calm and peaceful period is ideal for health-promoting activities like meditation, self-care, and leisurely outdoor activities. This time usually corresponds with our morning activities, such as taking a shower and getting ready for the day. Because it fits with the emphasis on health and wellbeing, it is therefore better to place restrooms during this quarter.

As the sun moves to the south and southeast, it is time to prepare meals and leave for work between 7.30 am and 12 pm. Because natural light is most needed during working hours, the southern part of the structure is therefore perfect for workplaces. For those who stay home, this is also a time to retreat to more personal spaces like bedrooms or private offices. It was customary for the head of the home to take a nap after lunch from 12 to 6 p.m., as the Sun travels to the southwest and west. Therefore, the southwest corner is usually where the master bedroom is located. However, because of the extreme heat at this time, it is better to have few openings and diffused light, and to position heavy items, such as

closets, in strategic locations to act as insulation. Children's rooms and study spaces are appropriate for this time of day since it also happens to be when kids get home from school.

This quarter is ideal for bedrooms since it is time to relax and sleep between 6 p.m. and 3 a.m., when the Sun moves from the northwest to the north. Guest rooms or rooms used less often are often placed here since they receive less natural light than other parts. Because of its location, which also improves security and solitude, it is appropriate for storing valuables.

3. Spaces arranged according to Vastu Shastra

Bedroom: Ideally situated to encourage stability and relaxation in the southwest section of the house. Place the head of the bed facing south or east to ensure a good night's sleep and prevent negative energy.

Kitchen: The southeast or northwest corners of the house are the ideal spots. To promote health and prosperity, the kitchen should be tidy and well-organized, with the stove or cooking area facing east.

Veranda or Open Spaces: Ideally placed in the east or north to promote the unrestricted flow of good energy. A peaceful atmosphere is created by keeping these spaces clear of clutter and well-lit.

Bathroom: The area should be in the northeast or east to guarantee hygienic conditions. To keep the mood upbeat, it should be clutter-free and well-ventilated.

Puja Room or Meditation Room: Positioned at the northeast corner, sometimes referred to as God's Corner or the Ishanya, to encourage spiritual development and good vibes. The altar should face either north or east, and the area should be kept calm and tidy.

W.C. (Water Closet): Move away from the kitchen and prayer room and toward the west or northwest to prevent the contamination of positive energy.

Dining Room: It works best when oriented east or west to promote abundance and harmony. When eating, the head of the household should face either the east or the north depending on how the dining table is arranged.

Drawing Room or Living Room: Pick a spot that faces north or east to promote social interaction and relaxation. The arrangement of furniture should encourage dialogue and a free exchange of ideas.

Study Room or Home Office: Positioned to increase production and focus in the northeast or east. The room should be well-lit and clear of distractions, and the desk should face either east or north.

4. Aligning Traditional Vaastu Shastra with Modern Construction Practices

Vaastu Shastra and contemporary construction methods are compared to identify similarities and differences in a number of important areas, including site analysis and selection, orientation determination, site planning, proportional building measurements, dimensions, aesthetic considerations, zoning regulations, and door placements. Traditionally, certain qualities were used to describe a good

place: it had to be square or rectangular, high in the south and west, white (indicating cleanliness), fragrant with jasmine and lotus, compact and smooth to the touch, and having a sweet taste. An inappropriate placement, on the other hand, was asymmetrical, high to the east and north, dark, loose, odorous, hard to manage, and tasted terrible. A number of factors must be considered these days while choosing a good website. A fully or partially developed region with a breathtaking view of the surrounding hills, rivers, or lakes is the perfect location for the property. People should be able to get to work, school, or the market with a sufficient number of transit options, such as bus and train service. It should be easy to access public utilities such water supply, sewage systems, power, and phone connections. The location should provide the building enough of light and air, have a suitable groundwater table, and be close to schools, hospitals, and marketplaces. Additionally, infrastructure soil needs to be reachable at a deep enough depth and have construction-grade soil. In order to prevent noise and pollution, residential sites should also be situated far from busy business districts and industrial regions.

Traditionally, the orientation of the location was determined by the movement of the Sun and Gnomemon, with East being the most auspicious direction. These days, orientation is determined using a compass, and north and east are the recommended directions. For maximum indoor comfort and energy efficiency, proper orientation is essential, taking into account seasonal variations in the Sun's path and dominant wind patterns.

Dividing the property into several padas, or squares, each of which represents a god, is necessary for site design, according to Vastu Purusha Mandala. The suggested building activities are influenced by the positions of these deities. Understanding the site development process, taking into account both natural and human factors, and gathering data to classify and assess design aspects are all part of modern site planning. By employing contour maps to assess surface features including trees, ground cover, ground surface, and soil conditions, guidelines are created for the planning, architecture, and landscape disciplines.

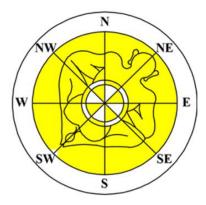


Fig 2- Navigation and Specific orientation for alignment of buildings, Source: https://www.occultspeak.com/vastu-tips-for-mandir-in-flat/

In the past, gnomons and the motion of the Sun were used for orientation. The west was typically the least favored direction, whereas the east was thought to be the most auspicious for positive results. Compared to ordinal directions, cardinal directions were more important. These days, a compass is used to determine orientation; north and east are thought to be ideal, whereas south and west are less preferred. By lining up a structure with seasonal changes in the Sun's path and the main wind patterns, proper orientation can improve a home's energy efficiency while also making it more comfortable and economical to operate. In areas with mixed or variable climates, longer north-facing walls can help control solar exposure, lowering summer overheating and boosting winter warming.

Pada Vinyasa, a technique that divides the site into padas, or squares of different sizes, ranging from one square to 32x32 (1084) squares, is part of site planning, according to Vaastu Purusha Mandala. These squares are designated for deities, and the area granted to each deity determines the zoning of the house. Manduka (64 squares) and Paramasaiyn (81 squares) are suggested for all construction applications. The design and construction of buildings are still influenced by this ancient technique.

A key component of contemporary site planning is comprehending the site development process, which includes both natural and human factors that impact the environment and structure. Following data collection and analysis, recommendations are made to address issues on the job site and overcome design and planning obstacles. Planning, architectural, and landscaping concepts are often clarified by using geological characteristics and contour maps.

Direct observation of trees, soil, ground cover, and ground surface is made possible by site study. Consider aspects including kind, size, location, shading patterns, and ecological ramifications while evaluating vegetation. Slope studies should take into account a variety of factors, including elevation, drainage patterns, landforms, gradient, and others. Man-made features like squares, walls, porches, shelters, and bus stops are accurately depicted on maps.

Figure 3: Vastu Purusha Mandala illustrates how the Matrix Iron System is used to structure construction plans. This method ensures that the construction process is well planned.

By choosing the right ratios, proportions, or Maana, direct the planning and design process. It gives a structure the perfect height to width ratio for achieving visual harmony. Hasta (18 inches) and Angula (3/4 of an inch), two ancient measurement concepts, are used. There are six classes into which these metrics fall:

- 1. Measurement of height
- 2. Measurement of breadth
- 3. Measurement of width or circumference
- 4. Measurement along plumb lines
- 5. Measurement of thickness
- 6. Measurement of interspace

Vastu Shastra recommends specific proportional ratios between these measurements to create structures with pleasing proportions. Different height-to-breadth ratios yield different aesthetic qualities:

• Ratio of 1: The structure is aesthetically proportionate when height equals breadth.

- Ratio of 1.25: This ratio signifies stability when the height is 1.25 times the breadth.
- Ratio of 1.5: An outstanding appearance is achieved when the height is 1.5 times the breadth.
- Ratio of 1.75: The structure appears both solid and aesthetically appealing when the height is 1.75 times the breadth.
- Ratio of 2: The structure appears gorgeous when the height is twice the breadth.

Modern construction activities are guided by the principle of proportion, which serves as a fundamental concept in building theories, bridging mathematics and art. It helps visualize spatial relationships between various elements within a structure.

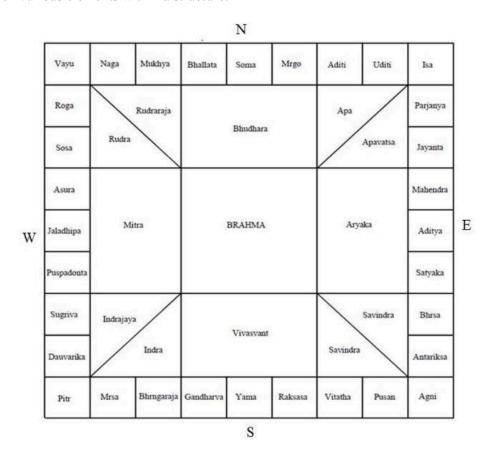


Fig 3- Vastu Purusha Mandala

The spatial representation of connections between various elements and locations within a design is sometimes defined by a standard unit of length known as a "module." For example, an individual's height can be defined as a module to determine the structure's proportions. Architectural proportions have been thoroughly studied and debated by renowned architects like Vitruvius, Alberti, Andrea Palladio, and Le Corbusier.

The residual concept serves as the foundation for the Shadvarga calculating method used in the six Vedic architectural canons, sometimes referred to as Aayadi or Building Dimensions. The correct dimensions for the construction are determined using the six equations: Aya, Vyaya, Yoni, Riksha, Vara, and Thithi. These dimensions include height or circumference, width, and length. The residue of

countless multiplications and divisions are used in the computations, which account for factors like solar and lunar days and star groupings. Silpis uses a technological instrument called the Aayadi calculation to figure out the proper construction measure while keeping proportions. Design specifications and regulations enforced by local construction authorities, such as the Floor Area Ratio (FAR), Ground Coverage, Setbacks, and Building Height Restrictions, dictate the proportions of modern structures. In addition to meeting regulatory requirements, setbacks provide natural light and air to flow at street level

The different forms or elevations that a structure may have are represented by the building's aesthetics, or Chanda. Following Chanda makes it simple to identify structures according to their purposes.

There are six Chandas in Vastu Shastra:

- 1. Meru Chanda resembling sacred mountains, like temples.
- 2. Khanda Meru Chanda having an upward cut side, like Burj Al Arab.
- 3. Pataaka Chanda resembling a flagstaff with a banner spread out, like the Throne Pillar of Fatehpur Sikri.
- 4. Sushi Chanda resembling a needle, like Burj Khalifa.
- 5. Uddista Chanda lacking independent perspective.
- 6. Nasta Chanda lacking independent perspective.

Modern architecture prioritizes aesthetics, taking into account form, size, texture, color, balance, unity, movement, and cultural context. Unity, Proportion, Scale, Balance, Symmetry, and Rhythm are all aesthetic aspects that must be addressed in order to create a unified and visually appealing design. Aesthetic interpretation varies depending on the viewer's perspective.

Zoning, also known as Griha Vinyasa or Sthana Vinyasa, is the process of allocating various functional activities within a house based on the names of deities from the Vastu Purusha Mandala. The central BrahmaSthana, which is regarded the connection between the house and the universe, should be left open or with little development. The puja room is often located in the northeast, the kitchen in the southeast, the showers in the northeast, the living room generally shifting from the north to the west, the dining rooms varying from the south to the west, and the bedrooms in the southwest and south. In modern times, building zoning considers various factors such as the orientation of the building for natural light and ventilation, the daily routines of occupants, convenient access to activities, and escape routes for emergencies.

Door opening/Dwara Sthana - Ancient practices dictated the names of Pada Devatas to determine the major doorway's position in a given direction, usually to the immediate right of the center line.

In today's world, there is no hard and fast rule for choosing doorway places, but factors to consider include guaranteeing continuous and easy access, corner placement to maximize usable area, and deciding door width based on the function of the enclosure.

Comparisons and Inferences:

Site Selection:

- Traditional Vaastu Shastra prioritizes site shape, soil qualities, and vegetation. •
- Modern site selection takes into account environmental considerations, development type, landscape, transportation accessibility, facilities, and soil testing for foundations. In both traditions, the preferred shapes are square or rectangular with raised West and South sides.

Determination of Orientation:

- Traditional Vastu Shastra favors the East and disfavours the West.
- Modern Vastu Shastra chooses the structure's direction depending on the sun's position for passive solar design, reducing the need for mechanical equipment. North and east directions are often preferred.

Vastu Purusha Mandala/Site Planning:

- Traditional Vastu Shastra involves placing squares and deities in specified areas, however.
- Modern site planning takes into account standard and artificial features, environmental
 considerations, orientation, and climate. The planning procedures differ, but the final design is
 comparable.

Proportionate Measurement of the Building:

- Vastu Shastra has five height-to-breadth proportioning systems.
- Modern architecture determines proportions using a module. Both methods yield similar design results.

Six Canons of Vedic Architecture (Aayadi/Building Dimensions):

- Vastu Shastra uses the Aayadi Shadvarga calculation, involving formulas like Aya, Vyaya, Yoni, Riksha, Vara, and Thithi.
- Modern structures adhere to plan needs and local bye-laws for dimensions, without using such formulas

Aesthetics of the Building/Chanda:

- Traditional Vastu Shastra emphasizes Chanda for easy identification of structures.
- Modern architecture considers aesthetics as a central aspect, dependent on individual perspectives.

Zoning/Griha Vinyasa or Sthana Vinyasa:

- Vastu Shastra allocates functional activities based on Gods' names in Vastu Purusha Mandala.
- In modern times, zoning considers occupants' needs, sun direction, and emergency escape routes, aiming to provide comfort and safety.

5. Conclusion

The analysis emphasizes the importance and adaptability of principles in responding to changing conditions. In certain cases, Vastu Shastra appears logical and practical, with good and consistent justifications for its suggestions. Vastu Shastra is closely rooted to its ancient roots in modern times, drawing on Vedic ideas while adopting a contemporary perspective. Individuals can incorporate Vastu Shastra principles into current architectural conceptions, recognizing their positive function in increasing people's well-being and contributing to societal growth. There is hope that the wealth of architectural knowledge from the past can be applied to evolving societal and technological dynamics with little alterations while keeping its core principle. Vastu Shastra exhibits intellect and logic in specific situations by offering valid and consistent reasoning to back up its recommendations. It is possible to mix Vastu Shastra and current architectural science. Aligning these historical ideals with modern design standards can benefit people's health and contribute to societal growth. There is hope that the wealth of architectural learning from the past will remain relevant in the face of societal and technological advances, with minor alterations but maintaining its essential principles.

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Icon Design For Artifact Collection Classification At The Sri Baduga Museum, Bandung

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ABSTRACT

The Sri Baduga Museum, established as the Technical Implementation Unit of the Tourism and Culture Office of West Java Province, was named in 1990 to honor Sri Baduga Maharaja, the Sunda King who ruled the Tatar Sunda region from 1482 to 1521. The Museum has ten classifications of historical artifacts from Sundanese, starting from prehistoric times to the colonial era. However, the classification has not had visual signs. This condition is a research gap for researchers to create iconic signs that visually convey ten collections of artifact museums. This study adopts quantitative and qualitative approaches. The collection of data is started by conducting a survey of young people to know their perspective of the museum's collection. A visual communication approach was applied to develop iconic signs based on design elements: line, shape, space, colour, and texture. Icon design aims to represent the museum's artifact classifications which consists of Geology, Numismatics, Biology, Philology, Ethnography, Ceramology, Archaeology, Fine Arts, History, and Technology. This research hopes that this icon design can contribute to Sri Baduga Museum according to the museum's need. It is also hoped that this icon design can become a reference for other museums in developing information.

Keywords - Museum, Icon, Sign, Classification, Collection, Artifact.

1. Introduction

The existence of a museum is very important for every nation, because in a museum, a country can record the history of civilization involving the people and culture of that nation. In general, a museum is defined as a place for storing and exhibiting collections of ancient objects, art and historical scientific findings. Research by Brata, et al (2022) states that museums are not only providers of scientific information services based on data and facts, in accordance with the presentation of their collections of objects, but can also be a medium for non-formal education to strengthen national identity through cultivating character.

Based on this understanding, this research discusses a museum that specializes in collecting artifacts as national identity, namely the Sri Baduga Museum. This museum is a history and culture museum located in Bandung City, West Java. This museum was founded in 1974, but was inaugurated in 1980 with the name 'West Java Provincial State Museum'. During its development, in 1990, this museum changed its name again to the Sri Baduga Museum, whose name was based on one of the great kings of the Sunda Kingdom, Prabu Siliwangi or Sri Baduga Maharaja. He was known as a wise leader and brought progress to the Sunda kingdom. The name was also taken from the title of one of the Kings of

Pajajaran as written on the Batutulis Inscription, and was later determined through the Minister of Education and Culture Decree number 02223/0/1990 dated April 4 1990.

This Museum has various collection of prehistoric objects, such as life in the Stone Age, culture of Sunda Kingdom, and the art which is making batik and weaving, livelihood skills, fishing equipment, farming activities, activities crafts and pottery, village design works, making lighting equipment, as well as the traditional iron industry. There are collections of any kind of traditional games, written language discoveries from the 5th century AD and Sundanese script. The collections described Philosophy and value of each object. With dioramas and statues describing the process of making traditional products, this museum makes it easier for visitors to understand the way of life of Sundanese people from time to time (Nurislaminingsih, 2019).

The existence of the Sri Baduga Museum is very important, as stated in research by Saeful and Saputra (2020) as the local wisdom of the Sundanese is part of the identity of the Indonesian people. Therefore, the Sri Baduga Museum is a center for Sudanese cultural education and tourism, as well as a place to preserve the rich cultural heritage and involve the younger generation.

However, nowadays the Sri Baduga Museum is dealing with challenges in providing easy-to-understand and familiar information of its high-value artifact collections, especially to museum visitors. For the whole artifact collection, it divides it into ten classifications, namely the Geology, Numismatic, Biology, Philology, Ethnography, Ceramology, Archaeology, Fine Arts, Historical and Technology artifact collections. On the sribadugajabarprovgoid site, classification is useful for grouping historical objects related to certain branches of science. Based on research of Sinaga, et al. (2021) also stated that there is a need to optimize classification as an effort to organize the world of science into a systematic sequence.

The classification of the artifact collection at the Sri Baduga Museum is interesting to do research and use as a design study, by designing iconic signs that can represent their meaning, and make it easier for museum visitors to understand them.

In Charles Sanders Peirce's semiotic approach, icons are part of a typology of signs that can build meaning. Pierce (in Wulandari and Siregar, 2020) explains that there is a relationship between signifier and signified, or a relationship between a sign and an object or reference that is similar. Generally, the meaning of an icon is a sign that is similar to the object it represents (similarity in appearance), or a sign that is an imitation of something. Icons as signs also describe objects that cannot be presented. In other words, an icon is a sign that can describe the main characteristics of something even though the object is not present.

Based on the description of these icons, this study formulates a research question, namely how to design ten classification icons for the Sri Baduga Museum artifact collection? This design uses a basic design approach in the science of visual communication design, so that museum users can more easily understand the grouping of historical objects according to their function and branch of knowledge, based on the visual signs contained in the icons. This research aims to contribute ideas in designing icon signs that suit the needs of the Sri Baduga Museum, and can be used as a reference for developing visualization of signs from icons that are informative and easily recognized by museum users.

2. Literature Review

2.1. Icons and Representation of Meaning

John Fiske (2007) describes a semiotic approach as a study dedicated to understanding signs and their functions. In Pierce's semiotic approach icon function is to signify an object or situation, so that users who use Pierce's semiotic approach can understand both object and situation based on its characteristic.

In the context of language and literature, iconicity can be found everywhere, and is indispensable for conveying ideas and creativity. As a researcher Winfried Noths (2001) divided the semiotic foundations of iconic into three categories. First, imaginary iconicity, it means when a sign shows real similarity to its reference object. Second, diagrammatic iconicity, It means the similarity between a sign and its object is only relational or structural, It depends on the sequence of narrative propositions. Third, metaphorical iconicity, namely when the idea conveyed by a sign and the idea of its object are mediated by a third idea.

Nöth's research results show that humans, in their socio-cultural environment, need icons to evoke mental images of past experiences. That is why Peirce concluded that every statement can contain an icon or a set of icons, whether displayed simply or complexly. In icons there are new ideas that are able to build an image, interpretation and perception in the mind of the user. When a sign is connected to a reference object, this process involves a type of iconicity that suits the needs, namely an iconic sign that appears in the mind, and is then connected to past experiences.

Research conducted by Wardani (2015) states that epistemologically, perception is bound by culture, so that when a sign is interpreted as a message, the sign cannot be separated from the value system it adheres to, and is influenced by learning, selectivity, evaluation results, and the underlying context. its existence, as well as allegations regarding signs that are considered incomplete. Semiotically, the connection between iconic signs and objects with the past is what differentiates their meaning.

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2.2. Icons and Representation of Meaning

The relationship between iconic signs as representations of meaning can refer to the thoughts of Cavallaro (2004, in Wardani, 2011) which states that every representation can also be approached as a text in a sign system. Meanwhile, Alamsyah's research (2020) explains that the concept of representation is used to describe the expression of the relationship between text and reality through the use of signs, both verbal and non-verbal, so that the use of a sign can be said to be a representation, including to depict, imitate something, imagine or connect.

Therefore, the creation of icons as a sign system aims to provide the information needed by users through visual elements that can be read and understood. As Danesi (2011) said, representation can be defined as the use of signs, in the form of images and sounds that can describe, photograph, connect or reproduce something that is seen, sensed, imagined or felt in a certain physical form.

Understanding representation as an image that provides visual meaning in icon visualization can be read simplistically or comprehensively. Burton (in Yuwita, 2018) states that a simplistic meaning is a representation involving the meaning of various stereotypes, namely an assessment of the nature or characteristics of something that is subjective. Meanwhile, the comprehensive meaning covers representations through the media which is the substance of technology.

Thus, the classification of the Sri Baduga Museums artifact collection that is signed by an Icon designing, tells meaning comprehensively, because the representation is based more on social and cultural values of society, in accordance with science and technological development.

3. Method

This research conducts a mixed method, namely a quantitative and qualitative approach. In a quantitative approach, researchers collected the data through a random survey that involved 160 respondents who were between eighteen (18) years old to twenty-five (25) years old. It is distributed to randomly selected groups through Google form that they share through WhatsApp. The participation consists of university students who liked to access videos from YouTube Channels. This survey determined the opinion of the younger generation regarding the existence of the Sri Baduga Museum. The survey which was made in Likert scale, involved Strongly agree, agree, unsure, disagree, strongly disagree. Meanwhile, to know the main interest for the younger generation of Museum, using the

closed question or multiple choice that include collections, the scenery and architecture of the building, activity programs, facilities and infrastructure, and modern look.

This research uses a visual communication design approach, focusing on basic design elements. Evan and Thomas (in Putranto, 2018) define design elements as the foundation used to form a design composition. Basic design elements also function to help convey messages effectively through design work, and become a representation of what you want to depict. In designing icons, this research focuses on five important basic design elements, namely line, shape, space, color and texture elements. The results of the analysis aim to reveal the function of design elements as forming iconic signs that have visual strength in providing understanding and recognition of the classification of artifact collections. This is also an application of design science in utilizing the role of technology to create informative signs, as well as being able to provide understanding through visualization that attracts more attention.

4. Results and Discussion

The discussion in this study is based on efforts to design icons as a sign system for classifying the artifact collection at the Sri Baduga Museum in Bandung which is divided into ten classifications, namely: Geology, Numismatics, Biology, Philology, Ethnography, Ceramology, Archeology, Fine Arts, Historical and Technology. The creation of this icon design is a case study of signs that can be interpreted more broadly. As Kris Budiman said (in Soekarwo, 2013), the science of signs is related to the visual reading of signs, namely the relationship between signs and various aspects, then the relationship between signs and their users.

Therefore, before designing this iconic sign, researchers conducted a preliminary survey about the museum's appeal to the younger generation, and what elements of the museum have the potential to build this attraction. The survey results are needed to base the design of icons that can meet the needs of users, especially the younger generation.

Research by Prasetyo et al. (2021) states that nowadays, demands on the world of education are increasingly growing. The world of education is expected to be able to help the next generation in facing or responding to increasingly competitive and complex contemporary developments. One of the learning resources that the younger generation can use is museums, through their collections of historical objects about past civilizations, so that the younger generation can learn from past experiences.

4.1. Survey Results Regarding the Attraction of the Sri Baduga Museum in Bandung

Obtaining data from young generation respondents regarding educational tourism to museums which still have an appeal, shows the following: 53 (33%) respondents stated that they strongly agreed; as many as 79 (50%) respondents agreed; as many as 26 (16%) respondents said they were doubtful; as many as 2 (1%) respondents said they did not agree; and 0% of respondents who said they strongly

disagreed. The total percentage of respondents who strongly agree and agree is 83%, so it can be said that educational tourism to museums is proven to still have an appeal.

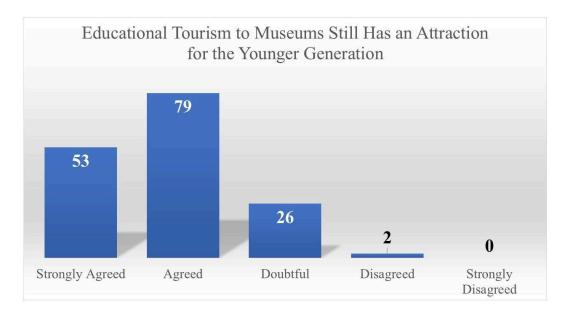


Fig.1 Educational Tourism To Museums Still Has An Attraction For The Younger Generation

The attraction of museums today can be promoted through various media, both print and electronic. One form of promotion that can be relied upon is information via social media by continuously uploading content about museum collections and activity programs. The Sri Baduga Museum Bandung currently has several accounts on social media, such as the Instagram account @sribaduga1980, with 4749 followers, then the Sri Baduga Museum Official YouTube channel, and site access at the link http://sribaduga.jabarprov.go.id/koleksi.

Istina's (2022) research on the existence and function of museums for Generation Z shows that among the reforms that museums can make to increase the appeal of Generation Z is by providing interesting visuals that can be uploaded on social media or website links. Museum catalogs can be designed digitally and can be downloaded easily, so that museum enthusiasts can access complete information about the museum's collections in a fun way. These methods indirectly provide a new modern experience in enjoying museums today.

Furthermore, a survey regarding what elements can build a museum's attractiveness, showed the following results: as many as 84 (52%) respondents stated that museum collections; as many as 47 (29%) respondents stated the scenic atmosphere and architecture of the building; as many as 14 (9%) respondents stated activity programs; as many as 12 (8%) respondents stated that facilities and infrastructure; and as many as 3 (2%) respondents stated that it had a modern appearance. The total percentage of respondents who indicated that the potential for greater attraction lies in the exhibition collection as well as the scenic atmosphere and architecture of the building.



Fig.2 The Main Attraction of the Sri Baduga Museum

The results of research observations show the potential attraction of the collection of artifacts and the building architecture of the Sri Baduga Museum. This museum is located opposite Tegalega Park and has a building with typical traditional Sundanese architecture. The shape of the building represents local wisdom and culture of West Java, with a roof that resembles a house on stilts. This museum holds more than 6,000 collections divided into three main floors. The first floor features exhibitions focusing on the geology, geography and early history of West Java, including fossils, prehistoric artifacts and relics from the Hindu-Buddhist kingdom period. The second floor displays West Javanese culture and arts, such as traditional clothing, traditional musical instruments, wayang golek, as well as replicas of traditional houses and daily equipment of the Sundanese people. Meanwhile, the third floor is dedicated to displaying the social and economic development of West Java, from the colonial period to independence, with collections that include historical documents, ancient currency and artifacts from the era of the struggle for independence.

Based on this potential, designing icons as a classification sign system for museum artifact collections can not only represent the meaning of values and culture contained in the collection, but also facilitate the dissemination of knowledge for museum enthusiasts.

4.2. Icon Design For Artifact Collection Classification

The design of the icons in this study was the result of discussions by the research team, after going through a process of collecting data from literature studies, observations and interviews. The design is based on an understanding of the meaning of artifact classification, which is then developed using the basic design elements of line, shape, space, color and texture as its constituent elements.

The function of basic design elements is not only to build meaningful visual signs to convey messages, but each element is able to influence the perception of people who see it. According to Irfan (2015),

line elements can create a certain impression or emotion in a layout, such as lines that are regular, directed, spread out, intersecting or diagonal, horizontal, vertical, dotted, zig-zag, curved, thick, or smooth. Every line element can also emphasize or indicate something important. For example, a vertical line gives the impression of height or as a divider.

Next, shape elements are connecting line elements to form something free, adapting to the needs of the designer or user. Shapes can be described in two and three dimensions. Putranto (2018) explains that shape can be interpreted as a figure or mass. When a two-dimension is transferred to three dimensions, the shape can become something that has volume. Accordingly, we can conclude the form elements often cannot be separated from space elements. The space elements can be interpreted positively and negatively. It is the basis of this form which makes it clearer and more solid. The positive space means the filled space when form elements are part of design. Meanwhile, negative space is the background. Both Form and space elements always influence and connect each other.

When we talked the color elements, It has name of color, value as the dark or light of the color, and intensity as the level of brightness or dullness of the color hue. According to Paksi (2021), color can influence perception and provide accents on the surface of a subject as a sign to build similarities in perception within a field. More over Color can also enhance visual attraction, increasing the desire, the taste and emotions.

In the context of using of black and white in design, Caviano (2022) states that sometimes white and black are considered not to be a color, but the sum of all colors, or a combination of color pigments. Or white often also appears as the absence of color, and black is said to be the loss of light radiation. However, basically black and white are colors, because their function is to provide a visual sensation. "Pigment" and "color" are not the same; "light radiation" and "color" are also not the same. Basically, each color has their function, strong character identity in order to help humans respond to something that is related to them.

Meanwhile the function of the texture element is to show or display the surface quality of an object. In design there are touch textures and sight textures. For example, when design is presented in digital form, so it looks at the texture elements. Touch texture and sight texture are distinguished from physical touch and imagination. However, in perception both can create the impression of a rough, smooth, flat, uneven, wavy, discontinuous or sharp texture. Textural elements can add interest and curiosity to a design.

Based on the understanding of the basic design elements above, this study designed icons for ten classifications of artifact collections that can represent the meaning of Geology, Numismatics/Heraldics, Biology, Philology, Ethnography, Ceramology, Archeology, Fine Arts, Historical and Technology. Wantoro and Cahyadi (2020) stated that through sign visualization, meaning can be implied or connected to the pattern shown. As a stimulus, iconic signs can inspire viewers to grasp these meanings. The results of the icon design for the classification of the Sri Baduga Museum Bandung artifact collection can be described as follows:

4.2.1. Geology

The Geology Classification shows collection objects that are the subject of scientific discipline study, including: rocks, minerals, fossils and other naturally formed objects (granite, andesite).

Table 1. Geology Icon

Design —	Icon As Sign		
	Classification	Visual Element	Meaning
	Geology	The line elements are straight, curved, spread out, discontinuous, with shape elements representing the characteristics of carpentry tools and resembling stone chips. The space element shows positive space because it displays an illustration of a black object. The sight texture elements are rough and sharp.	Representation of the meaning of a collection of artifacts from the Stone Age.

4.2.2. Numismatics / Heraldic

Numismatic Classification denotes objects that represent the history of trade, such as currency or legal tender. Meanwhile, heraldry is every service mark, symbol and official mark of rank, such as a stamp.

Table 2. Numismatics / Heraldic Icon

Design -	Icon As Sign		
	Classification	Visual Element	Meaning
Rp	Numismatics / Heraldic	The line elements are curved in a circular but discontinuous direction, with the shape elements representing the characteristics of a medium of exchange such as coins. The space element indicates negative space and positive space. In the negative space, there are white background elements to highlight the shapes of the letters R and P. In the positive space there is a black incomplete circle shape which represents the characteristics of the symbol. The sight texture elements are uneven.	Representation of the meaning of buying and selling artifact collections in society.

4.2.3. Biology

The Biology classification shows collection objects that are included in the category of research subjects studied by the discipline of biology, including human skulls or skeletons, plants and animals, whether fossilized or not.

Table 3. Biology Icon

Design —	Icon As Sign		
	Classification	Visual Element	Meaning
	Biology	The line elements are thick, straight and curved, with shape elements representing the characteristics of plant roots and shoots. The space element shows positive space in the form of a black object that can be perceived as part of a plant. The sight texture elements are smooth.	Representation of the meaning of the collection of fauna and flora found artifacts

4.2.4. Philology

The Philology classification shows collection objects that are the object of philological research, in the form of ancient handwritten manuscripts that describe something or an event.

Table 4.Philology Icon

Doring	Icon As Sign		
Design —	Classification	Visual Element	Meaning
	Philology	The line elements are thin, curved, with shape elements representing the characteristics of a sheet resembling paper. The space element shows positive space in the form of a black line illustration in the form of a sheet. The sight texture element looks uneven.	Representation of the meaning of a collection of artifacts from the discovery of ancient writing on various materials such as paper.

4.2.5. Ethnography

Ethnography classification shows collection objects that are the object of anthropological research. These objects are cultural products or depict an ethnic identity.

Ethnography Icon Table 5. Icon As Sign Design Visual Element Classification Meaning The line elements are thick, curved, directional, spread out, with shape elements representing the characteristics of mountains in Representation of the meaning of Ethnography wayang plays. The space element collections of art, cultural and traditional artifacts in society. shows positive space because it displays two black mountains. The sight texture elements look even and smooth.

4.2.6. Ceramology

The ceramology classification shows collectibles made from baked clay in the form of glassware, such as household utensils.

Icon As Sign Design Classification Visual Element Meaning The line elements are curved, thick, with the shape elements representing the characteristics of the jug as a Representation of the meaning of household item. The space element Ceramology a collection of household artifacts shows positive space because it made from clay. displays a black ceramic model. The sight texture elements look smooth and wavy.

Table 6. Ceramology Icon

4.2.7. Archaeology

The Archaeology classification shows collection objects that are the result of past human culture which are the object of archaeological research. These objects are the result of cultural remains from prehistoric times until the arrival of western influence.

Table 7. Archaeology Icon Icon As Sign Design Classification Visual Element Meaning The line elements are straight, curved, thick, discontinuous, directional, with shape elements representing the skeletal characteristics of ancient animals. The space element indicates positive Representation of the meaning of and negative space. Positive space is ancient artifact collections and Archaeology life activities in the past displayed on a black background visualization. Meanwhile, in the negative space, a visualization of a white ancient animal skeleton is presented. The sight texture elements look rough and sharp.

4.2.8. Fine Arts

The Fine Arts classification indicates collectibles that express human artistic experience through twoor three-dimensional objects. In this case, including musical equipment, painting and carvings.

	Ta	ble 8. Fine Arts Icon		
Decim	Icon As Sign			
Design —	Classification	Visual Element	Meaning	
	Fine Arts	The line elements are curved, spread out, with the shape elements representing the characteristics of the palette and brush as painting tools. The space element shows positive space which displays two black objects. The sight texture elements look uneven.	Representation of the meaning of a collection of artifacts and art crafts as expression.	

4.2.9. Historical

The historical Classification shows collection objects that have historical value, covering the period from the arrival of western influence until now (new history). These objects have been used for things related to an event (history) or culture.

	Tal	ble 9. Historical Icon		
Design —	Icon As Sign			
	Classification	Visual Elemen	Meaning	
thick, curve shape elemicharacterist knives as welement sho displays two objects, sho contrasts. T		The line elements are straight, thick, curved, intersecting, with shape elements representing the characteristics of thin weapons and knives as weapons. The space element shows a positive space that displays two black and white objects, showing different color contrasts. The sight texture elements look uneven and wavy.	Representation of the meaning of a collection of artifacts in the form of objects for survival.	

4.2.10. Technology

The technology classification shows a collection of objects that illustrate the development of traditional to modern technology, including agricultural equipment.

	Tab	le 10. Techno	ology Icon	
ъ :	Icon As Sign			
Design —	Classification	Visua	l Element	Meaning
	Technology	The line elements as curved, regular, with representing the charachine tools as tecspace element shown egative space. Possiblack background. In negative space high technology objects, elements look unever	h shape elements aracteristics of chnology. The vs positive and itive space as a Meanwhile, lights the white The sight texture	Representation of the meaning of a collection of technological equipment artifacts that continues to develop according to the times.

Based on the results of the explanation above, the line elements used in icon design consist of straight, curved, thick, thin, regular, spread, directional, intersecting and dotted line elements, which then with shape elements represent the characteristics of the object which is represented. Meanwhile, the color elements are dominated by black and white as monochrome colors which are able to provide identification and visual sensation. Then the space element is dominated by positive space, and the texture element as texture looks dominated by a flat, uneven, smooth, rough, wavy and sharp appearance. This is the study of the results of the tenth icon design classification of the Sri Baduga Museum Bandung artifact collection.

5. Conclusion

This research shows that icon design is not just about creating simplified images, but each image is able to represent the object being represented. In this case, the icon does not require agreement in interpreting it, because the basic design elements that form it already show the characteristics of the object. The results of this research not only provide an understanding of the function of the elements of line, shape, space, color and texture in forming icons, but also provide insight into creative ways to increase awareness of the attractiveness of the Sri Baduga Museum Bandung artifact collection. Icon design which can be an informative sign, helps visitors to recognize each historical object based on its classification. This is in line with Museum visions that increase public knowledge and encourage younger generations to know the historical traces of civilization as national identity, so they have a willingness to preserve historical heritage objects. This research can be a reference for researchers or designers to design more interesting artifact collection classification icon signs, according to the needs of the Sri Baduga Museum. It is also hoped that this icon design can become a reference for other museums.

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