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## Creating And Developing Products With Surface Ornamentation Of Mandala Art

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### ABSTRACT

Mandalas, intricate geometric designs originating from Hinduism and Buddhism, hold deep significance as symbols of cosmic harmony and interconnectedness within the universe. They are primarily utilized for meditation and spiritual development, serving as powerful tools in Vajrayana Buddhism to illustrate impermanence through the meticulous creation and subsequent dissolution of sand mandalas. In Hinduism, mandalas symbolize the cosmic order and aid practitioners on the path towards self-realization.

The spread of Buddhism along the Silk Road played a pivotal role in disseminating mandalas across Asia, where they became integral to various religious and cultural traditions, enriching their symbolism and spiritual importance.

Rich in symbolic meaning, mandalas often incorporate elements such as the Eightfold Path, promoting mental clarity and facilitating spiritual awakening. They also play a significant role in Ayurvedic and Tibetan Medicine, symbolizing the harmonious balance of elements within both the human body and the universe, thus promoting holistic well-being.

The selection of colors within mandalas is purposeful, chosen for their symbolic meanings and their potential to evoke specific emotional responses, thereby enhancing their effectiveness in meditation and spiritual practices.

Beyond their spiritual roles, mandalas find applications in diverse fields including fashion, education, therapy, architecture, and personal development. Recent research has explored their integration into yoga products, which has been met with positive reception from consumers, indicating promising market potential. The mandalas continue to inspire spiritual growth, encourage artistic expression, and contribute to holistic health practices globally. Their enduring cultural relevance and versatility across various domains underscore their profound impact on human experience and well-being.

### KEYWORDS

Keywords: Mandalas, Hinduism and Buddhism, Symbolize, Vajrayana Buddhism, Tibetan and Monks, Sand mandala, Yoga Product Development.

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## INTRODUCTION

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Mandalas are intricate geometric designs originating from Hinduism and Buddhism, hold profound symbolic and spiritual significance. They symbolize the harmony and interconnectedness of the universe, serving as powerful tools for meditation that promote inner peace and self-discovery. Across cultures, mandalas are revered for their ability to facilitate spiritual growth and healing, combining aesthetic beauty with effective mindfulness practices.

In contemporary contexts, mandalas are widely embraced in art and therapy, where they help individuals relax, reduce stress, and express creativity. In Vajrayana Buddhism, mandalas illustrate the transformation from suffering to joy, notably through the creation and dissolution of intricate sand mandalas. In Hinduism, they represent the cosmic order and the interconnected nature of all existence, reflecting the journey towards self-realization as described in ancient scriptures like the Rig Veda.

The spread of Buddhism along the Silk Road played a crucial role in disseminating mandala art across Asia, integrating it into various religious traditions and making it integral to Buddhist rituals. Crafted with meticulous detail by skilled artisans, mandalas not only embody beauty but also serve as profound tools for spiritual contemplation and enlightenment.

Rich in symbolism, mandalas feature elements such as the Eightfold Path and symbolize mental purification and spiritual awakening. They also play a significant role in Ayurvedic and Tibetan Medicine, representing the harmonious balance of elements within the body and the universe, promoting holistic well-being.

Colors within mandalas are chosen for their symbolic meanings and their ability to evoke specific emotional responses, enhancing their effectiveness in meditation and spiritual practices. From ancient traditions to contemporary studies exploring their applications in art, therapy, and even fashion, mandalas continue to inspire creativity, spiritual exploration, and cultural appreciation worldwide.

Recent studies have explored various aspects of mandalas, showcasing their diverse applications and impacts. Sheikh and Bable (2023) investigated the development of dupattas adorned with stencil-printed mandala motifs, finding strong approval for their designs. This research suggests potential for enhancing creativity and generating income through independent projects. Ankita and Rusdi (2023) integrated Mandala Art with traditional Malay Deli ornaments, creating distinctive pattern designs that serve as valuable references for designers and artists exploring cultural fusion in their work.

Hyun Jung and Hwang (2020) focused on developing yoga sports bras tailored to women's preferences during yoga practice, highlighting a preference for compression bras despite comfort considerations. This underscores the importance of balancing design with practical comfort in yoga apparel. Tom (2015) delved into the subjective nature of reality and perception, emphasizing how individual experiences and cultural backgrounds shape our understanding of the world. This study draws from philosophy, psychology, and sociology to promote empathy and broader perspectives.

Litchke et al. (2018) studied the effects of a multimodal Mandala yoga program on youth with autism spectrum disorder (ASD), noting significant improvements in social skills, mood, emotional expression, empathy, and teamwork. This research highlights the therapeutic benefits of mandalas in enhancing social and emotional skills among young people. Bafna (2000) critically re-evaluated mandalas' influence on Indian architecture, challenging modern beliefs and suggesting that their impact on traditional architectural forms may be overstated, potentially influencing broader interpretations of historical design practices.

Mahar et al. (2012) explored the use of mandalas for emotional learning among nursing students, demonstrating how engaging with mandalas can foster critical self-reflection and emotional growth. These studies collectively underscore the multifaceted nature of mandalas, from their cultural significance and artistic applications to their therapeutic benefits and influence on architectural and emotional practices.

MATERIAL AND METHODS

The study aims to achieve three primary objectives: firstly, to delve into the historical and cultural underpinnings of mandala art; secondly, to explore the integration of mandala art into various products tailored for yoga practitioners; and thirdly, to develop preferred products adorned with surface ornamentation of mandala art. Identified gaps in current research include limited exploration into incorporating mandala art into product design, challenges related to the authenticity and preservation of original mandala art techniques, motifs, and materials, and a growing interest in mandala art as a professional course of study. These gaps highlight the need for deeper investigation and innovation in leveraging mandala art's cultural richness within contemporary contexts, particularly in product development and cultural preservation efforts. The consumer preferences for yoga products adorned with mandala art motifs employed a range of tools and methodologies to gather comprehensive insights and develop the final products. The research utilized a Proof of Concept phase to generate initial product ideas through collaborative sessions involving designers, yoga practitioners, and market experts. This phase aimed to brainstorm innovative concepts that integrate mandala art into yoga products effectively.

Following idea generation, the study identified the target demographic by conducting market segmentation analysis based on demographic data, yoga practice trends, and consumer behavior studies. This segmentation helped define a customer base characterized by age, gender, occupation, and yoga practice habits, ensuring alignment with the intended market.

A structured Baseline Survey was then administered to the identified customer base to capture data on awareness levels, preferences, and purchasing behaviors related to yoga products featuring mandala art. This survey provided foundational insights into initial demand and specific preferences among potential consumers.

Building on the Baseline Survey, a Middle-line Survey and subsequent focus groups were conducted to delve deeper into preferred product features and specifications. These sessions gathered detailed feedback on aspects such as fabric types, design motifs, functionality requirements, and aesthetic preferences. Quantitative data from surveys were analyzed using statistical methods to identify trends and preferences, while qualitative insights from focus groups enriched the understanding of consumer attitudes and expectations.

The Final Product Development phase integrated findings from the surveys and focus groups, guiding an iterative process of prototyping, testing, and refinement. Customer feedback played a pivotal role in shaping the final set of yoga products with mandala art motifs, ensuring they resonated with consumer preferences and market demand.

Overall, the combination of online and physical surveys, collaborative sessions, and statistical analysis facilitated a comprehensive exploration of consumer attitudes towards yoga products enhanced with mandala art. This methodological approach ensured that the developed products not only met but exceeded the expectations of the target market, fostering potential for market success and consumer satisfaction.



Fig 1: Yoga Mat

Fig 2: Tote Bag (Front)

Fig 3: Tote Bag (Back)

Fig 4: Bottle Cover



Fig 5: Yoga outfit (Front)

Fig 6: Yoga outfit (Back)



Fig 7: Meditation Pillow



Fig 8: Mandala Art Piece

RESULT

TABLE 1:

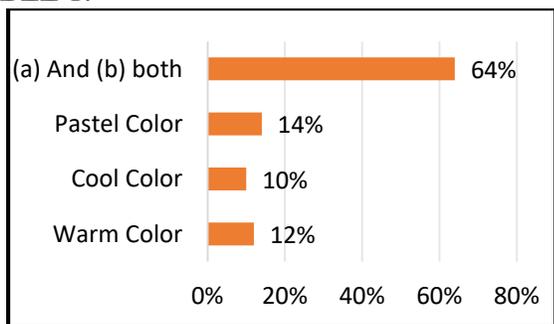


Fig 1:

The bar chart illustrates the color preferences of respondents when purchasing yoga products. A significant majority, 64%, preferred a combination of both warm and cool colors, indicating a

balanced liking for diverse color palettes. Pastel colors were chosen by 14% of respondents, suggesting a preference for softer and more subdued tones among this segment. Warm colors, preferred by 12%, reflect a smaller group that favors more vibrant and energetic hues. Cool colors were the least preferred, with only 10% of respondents indicating this choice. This distribution shows a strong inclination towards versatility in color preferences, with a notable favor for mixed color options.

TABLE 2:

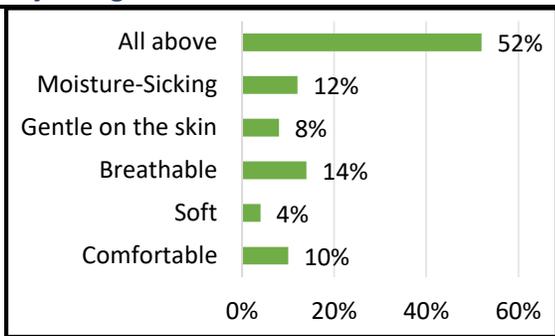


Fig 2: Quality preference

Shows that 48% of respondents prefer hand painting, while 44% prefer digital printing. This suggests a relatively equal preference between these two methods among the participants.

The mandala design that is most preferred by the respondents can be utilized for further product printing using various techniques on fabric or other products as needed. This ensures that the design resonates well with the target audience, increasing the likelihood of successful product adoption and satisfaction among customers.

TABLE 5:

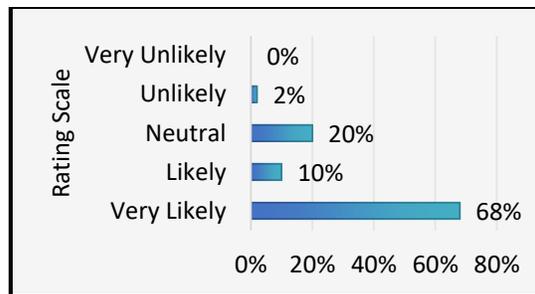


Fig 5: Mandala Motif

TABLE 3:

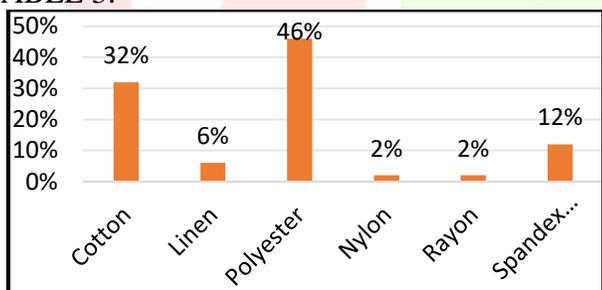


Fig 3: Fabric preference for Outfit

On a scale from "Very likely" to "Very unlikely," where "Very likely" represents a high level of preference, the rating for the design among respondents in Figure 4.4.1.1 would be "Very likely" with a 68% preference rate.

TABLE 6:

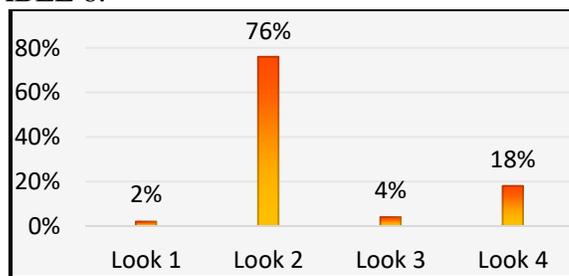


TABLE 4:

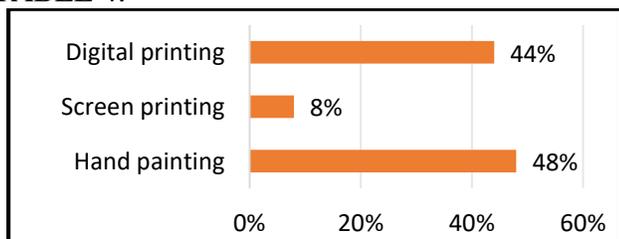


Fig 4: Printing technique preference

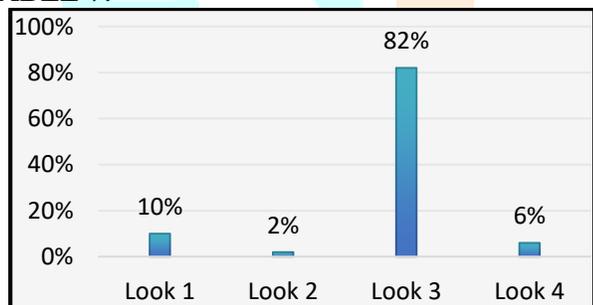
Outfit - The outfit design according to their preferences and desired quality. The illustrations provided an idea of how the outfit should look and where the design should be placed, aligning with their expectations and vision for the final product. This approach ensures that the outfit meets their specifications and satisfies their aesthetic preferences.



Fig6: Placement of design

The outfit design according to their preferences and desired quality. The illustrations provided an idea of how the outfit should look and where the design should be placed, aligning with their expectations and vision for the final product. This approach ensures that the outfit meets their specifications and satisfies their aesthetic preferences.

TABLE 7:



Yoga Mat - The researcher designed 4 different placements for the yoga mat, and the illustrations of these placements are shown in the respective fig 6 These illustrations provide visual options for the respondents to choose their preferred design placement.



Fig7: Placement of design

Shows that 82% of respondents preferred "Look 3" of the yoga mat with mandala art motifs. This

indicates a strong preference for that particular design among the majority of participants.

TABLE8:

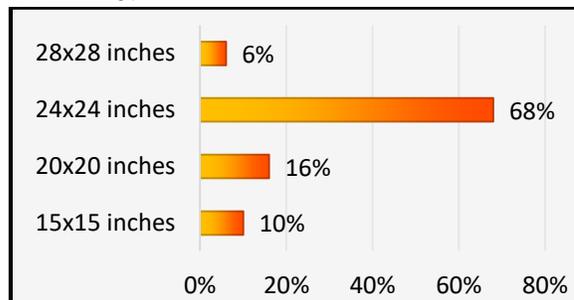


Fig8: Size preference

The figure 4.4.8 showed that the 68% respondents were prefer the 24x24 inches size for the final art piece.

After analyzing the questionnaire, conducting interviews, and observing the responses, the following are the important findings:

- It was found that majority of the respondents (26%) were between the ages of 40 and 45 years, with only 12% aged 50 years and above. This indicates a higher participation rate from middle-aged individuals.
- A significant majority (58%) of the respondents were female, compared to 42% male respondents, highlighting a higher engagement among women in the survey.
- The respondents included a diverse group, with 38% employed in jobs, 18% involved in business, and the rest comprising students and homemakers. This diversity helped gather a broad range of preferences and insights.
- A notable 84% of respondents were not aware of Mandala Art, while only 16% were familiar with it. This indicates a significant lack of awareness about this art form among the participants.
- An overwhelming 96% of respondents practiced yoga in their daily lives, underscoring a strong interest and commitment to yoga among the participants.
- 64% of respondents preferred both warm and cool colors, indicating a balanced preference for a diverse color palette.
- Among various materials, 46% of respondents preferred polyester, and 74% favored canvas

cotton, suggesting a preference for these materials in yoga products.

- The survey revealed diverse preferences for yoga-related products, with 20% preferring yoga mats and 16% each for yoga outfits, tote bags, meditation pillows, bottle covers, and art pieces.
- A strong majority (82%) of respondents preferred design motif (c), highlighting a clear favorite among the provided design options.
- The preferences for printing methods were relatively balanced, with 48% favoring hand painting and 44% preferring digital printing.
- 36% of respondents made quarterly purchases of yoga products, and 52% typically spent between Rs. 5000-7000 on these items, indicating regular buying patterns and a common spending range.
- The respondents' preferences and desired quality for outfit designs were aligned through detailed illustrations, ensuring that the final products meet their expectations.
- 72% of respondents preferred "Look 1" for the tote bag with mandala art motifs, and 78% were willing to pay between Rs. 500 to Rs. 1000, indicating a strong preference and clear budget expectations.
- "Look 2" was the preferred design for bottle covers by 82% of respondents, with 62% willing to pay between Rs. 800 to Rs. 1000.
- 82% of respondents preferred "Look 3" for the yoga mat, with 58% willing to pay between Rs. 1000 to Rs. 1500.
- "Look 2" was favored by 74% of respondents for the meditation pillow, with 57% willing to pay between Rs. 500 to Rs. 800.
- 72% of respondents preferred the sand art technique for the final art piece.
- 68% of respondents preferred a 24x24 inches size for the art piece, and 76% were willing to pay between Rs. 10,000 to Rs. 20,000.
- 96% of respondents strongly agreed that these products would be acceptable in the market, with 86% expressing a willingness to purchase more products of this type.

## Suggestions for Further Research

Based on the findings and limitations of this study, the following suggestions for further research are proposed:

- Future studies should include a broader age range and more diverse demographic groups to capture a wider array of preferences and behaviors. This could provide more generalizable insights into the target market for yoga products and Mandala art.
- Conducting longitudinal studies would help in understanding how preferences and behaviors change over time. This is particularly relevant in the context of evolving trends in yoga practice, wellness, and art appreciation.
- Investigating preferences and awareness of Mandala art and yoga products across different cultural and geographic regions could provide valuable insights into global market potential and cultural variations in aesthetic and functional preferences.
- While this study incorporated some interviews, a more extensive qualitative approach involving in-depth interviews and focus groups could yield richer, more nuanced insights into consumer motivations, perceptions, and emotional connections with yoga products and Mandala art.
- Research into the impact of new printing technologies and materials on consumer preferences for yoga products could help manufacturers stay ahead of trends and improve product offerings. This includes exploring the sustainability and environmental impact of different materials and techniques.
- Future research could assess the effectiveness of various marketing strategies in increasing awareness and appreciation of Mandala art. This could involve experimental designs testing different promotional approaches, such as social media campaigns, influencer partnerships, and educational workshops.
- Further studies could explore how different styles and intensities of yoga practice influence preferences for specific products and materials. This could help in tailoring products to suit various types of yoga practitioners.

- Investigating the psychological and health benefits of using yoga products adorned with Mandala art could provide evidence-based support for their promotion. This might include studies on the calming effects of Mandala designs or the ergonomic benefits of certain materials.
- More detailed research into factors influencing consumer willingness to pay for premium products could help in pricing strategies. This includes understanding the trade-offs consumers are willing to make between price, quality, and design features.
- Given the growing importance of sustainability, future research should focus on consumer preferences for eco-friendly and ethically produced yoga products. This includes examining the willingness to pay a premium for sustainable products and the impact of sustainability certifications on purchasing decisions.

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## CONCLUSION

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Mandalas, deeply rooted in Hinduism and Buddhism, symbolize the universe's harmony and interconnectedness, serving as tools for meditation, spiritual growth, and healing. Popular in art and therapy, they help individuals relax, reduce stress, and express creativity. Historically, mandalas played a significant role in guiding practitioners towards enlightenment, with the Rig Veda's ten mandalas exploring reality and the divine. The spread of Buddhism along the Silk Road facilitated the integration of mandalas into various religious practices, symbolizing concepts like the Eightfold Path and mental purification. In contemporary applications, mandalas are used in therapy, education, fashion, architecture, and personal development, showcasing their versatility. Studies have highlighted their therapeutic potential, cultural significance, and market viability, particularly in yoga products adorned with mandala motifs. Research suggests that these products, incorporating respondent preferences for design, material, and price, have strong market potential, indicating a positive reception and the potential for commercial success.

The study highlights the enduring appeal and cultural significance of mandala art. By incorporating original motifs and techniques into yoga products, the research aims to preserve the authenticity of mandala art while meeting the preferences and needs of modern yoga practitioners.

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## REFERENCES

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Sheikh, S., & Bael, R. (2023). Value Addition of Dupattas through Adaptation of Mandala Art Design using Stencil Printing. *International Journal of All Research Education and Scientific Methods (IJARESM)*, 11 (6), 687-695.

[https://www.researchgate.net/publication/371788487\\_Value\\_Addition\\_of\\_Dupattas\\_through\\_Adaptation\\_of\\_Mandala\\_Art\\_Design\\_using\\_Stencil\\_Printing](https://www.researchgate.net/publication/371788487_Value_Addition_of_Dupattas_through_Adaptation_of_Mandala_Art_Design_using_Stencil_Printing)

Panjaitan, N. A. H., & Tanjung, M. R. (2023). Design of Mandala Art Combination with Malay Deli Ornaments. *Jurnal Sosial, Politik dan Budaya (SOSPOLBUD)*, 2 (2), 251-264.

[https://www.researchgate.net/publication/372903835\\_Design\\_of\\_Mandala\\_Art\\_Combination\\_with\\_Malay\\_Deli\\_Ornaments](https://www.researchgate.net/publication/372903835_Design_of_Mandala_Art_Combination_with_Malay_Deli_Ornaments)

Lee, H., & Shin, S.-J. H. (2020). An Investigation of the Garment Pressure for Developing Yoga Sports Bras in Ergonomic Design. In book: *Advances in Ergonomics in Design*, 168-174. DOI:10.1007/978-3-030-51038-1\_24. [https://www.researchgate.net/publication/342596545\\_An\\_Investigation\\_of\\_the\\_Garment\\_Pressure\\_for\\_Developing\\_Yoga\\_Sports\\_Bras\\_in\\_Ergonomic\\_Design](https://www.researchgate.net/publication/342596545_An_Investigation_of_the_Garment_Pressure_for_Developing_Yoga_Sports_Bras_in_Ergonomic_Design)

Anderson, T. (2015). Mandala Construction Peace through Art. *Instructional Resources*, 55 (3), 33-39. <https://www.tandfonline.com/doi/abs/10.1080/00043125.2002.11651492>

Litchke, L. G., Liu, T., & Castro, S. (2018). Effects of Multimodal Mandala Yoga on Social and Emotional Skills for Youth with Autism Spectrum Disorder: An Exploratory. *International Journal of Yoga*, 11(1), 59-

65.

[https://www.researchgate.net/publication/322601145\\_Effects\\_of\\_Multimodal\\_Mandala\\_Yoga\\_on\\_Social\\_and\\_Emotional\\_Skills\\_for\\_Youth\\_with\\_Autism\\_Spectrum\\_Disorder\\_An\\_Exploratory\\_Study](https://www.researchgate.net/publication/322601145_Effects_of_Multimodal_Mandala_Yoga_on_Social_and_Emotional_Skills_for_Youth_with_Autism_Spectrum_Disorder_An_Exploratory_Study)

Bafna, S. (2000). On the Idea of the Mandala Device in Indian Architectural Tradition. *Journal of the Society of Architectural Historians*, 59 (10,26-49. <https://online.ucpress.edu/jsah/article-abstract/59/1/26/59369/On-the-Idea-of-the-Mandala-as-a-Governing-Device>

Mahar, D. J., Lwasiw, C. L., & Evans, M. K. (2012). The Mandala: First-year Undergraduate Nursing Students' Learning Experiences. *Journal of International of Nursing Education Scholarship*. [https://scholar.google.com/scholar?start=20&q=research+on+mandala+artwork&hl=en&as\\_sdt=0,5#d=gs\\_qabs&t=1677419642257&u=%23p%3DlpZeTOvUeWEJ](https://scholar.google.com/scholar?start=20&q=research+on+mandala+artwork&hl=en&as_sdt=0,5#d=gs_qabs&t=1677419642257&u=%23p%3DlpZeTOvUeWEJ)

<https://www.worldhistory.org/mandala/>

<https://www.worldhistory.org/mandala/>

<https://thesoundtemple.com.au/the-history-of-mandalas/>

<https://www.givemehistory.com/mandala-symbolism>

<https://mymodernmet.com/tibetan-buddhist-monks-sand-art/https://images.app.goo.gl/f52wZuGVYs4jMDah6>

<https://i0.wp.com/boomervoice.ca/wp-content/uploads/2016/09/Sand-Mandala-Completed.jpg?w=2160>

[https://resources.depaul.edu/newsline/multimedia/PublishingImages/Nov.%202018/20181102\\_mandala\\_jsc\\_112.jpg](https://resources.depaul.edu/newsline/multimedia/PublishingImages/Nov.%202018/20181102_mandala_jsc_112.jpg)

<https://elliottelford.com/wp-content/uploads/2015/07/ancientyogis-768x1024.jpg>

<https://www.yogapoint.com/images-new/yoga-history-img1.jpg>

<https://www.arhantayoga.org/wp-content/uploads/2023/05/8-Limbs-of-Yoga.png>