

Exploration of Malay Ornaments and Serdang Motifs in Hand-Painted Batik Using The Colet Technique

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Abstract. The Deli Malays are a Malay sub-ethnic group. The existing cultural resources in the form of Malay ornaments and serdang motifs have not been worked on. This study aims to explore and visualize Malay ornaments and serdang motifs in written batik. The theoretical and practical use of ornaments and motifs can increase knowledge for students of the fine art education study program, Faculty of Languages and Arts, Medan State University and industrial partners. The applied research methodology is the creation of works of art. The specific step of the work creation method is to make alternative designs until the finished design takes into account the elements and principles of fine art design. The result of the research is a biolytic prototype written batik artworks in various forms. Written batik works can add to the repertoire of batik in Indonesia and internationally.

Keywords: Engineering, Design, Batik, Serdang Motifs

1 Introduction

Each regional culture in Indonesia possesses a unique wealth of ornaments originating from its cultural architecture, which incorporates aesthetic motifs. Ornaments are representations of patterns in the form of lines and shapes designed to enhance the beauty of an object (Senoprabowo, A., Prabowo, D. P., & Khamadi, K., 2023) ^[1]. Ornaments are applied to various craft products and architecture, emphasizing harmony in the decorated object to increase its aesthetic value (Prihatin, P., Prastawa, W., & Nasution, M. W., 2022) ^[2]. One of the renowned craft products in Indonesia is batik. Batik is a cultural heritage of Indonesia recognized by UNESCO as part of the world's cultural heritage. Batik is formed by combining various ornaments to create unique motifs. Indonesian batik is typically diverse across different regions. The local culture and potential in each region serve as sources of ideas and elements for shaping the identity of the region, contributing to the creation of batik motif art.

In the era of globalization, batik in Indonesia has evolved with numerous modifications and developments in both batik motif design and batik production techniques, following the advancements in textile technology (Azizirrohmah, A. Y., & Russanti, I., 2023) ^[3]. This development has led to a wide variety of batik motifs across different regions in Indonesia. It is a reflection of the artistic expression and creativity of the community, enriching Indonesia's cultural heritage. This rapid development is influenced by fashion trends and government programs aimed at empowering regional potentials in batik production (Mahmudah, D., 2020) ^[4]. The empowerment of batik motifs in each region is influenced by geographical location and the local culture, resulting in unique styles and forms (Eksiyana, M., Ambarsari, R., & Sulistyowati, A.,

2021)^[5]. The background, substance, form, and meaning all contribute to the uniqueness of batik motifs, reflecting the identity of each region and presenting distinct nuances in every part of Indonesia.

Indonesia's richness in art and culture is influenced to some extent by its natural abundance, including various types of flora and fauna found throughout the country. This diversity provides inspiration for batik motifs, with different combinations and variations reflecting expressions explored from the surrounding environment into works of art. One region known for its distinctive batik craft that utilizes the exploration of natural forms is Deli Serdang in North Sumatra. Deli Serdang is characterized by motifs depicting the Serdang tree or betel leaves. The development of batik art in Deli Serdang is currently encouraged among the community to support economic growth and the development of tourism in the region. As the function of batik evolves from pure aesthetic art to applied art, there is a need for innovation to enhance the quality of Deli Serdang batik products, making them appealing to both local and outside markets.

Based on the above problem analysis, this research, with an applied product scheme, aims to produce innovative batik motif designs through the exploration of Malay ornaments and Deli Serdang motifs as inspirational motifs to be developed. This study builds upon and continues the work of the author (Atmojo, W. T., Misgiya, & Wiratma, S., 2022)^[6] from previous years, which focused on the creation of hand-painted batik based on traditional houses in North Sumatra and the challenges and opportunities of batik in the city of Medan. The author reveals that the art and culture of North Sumatra have significant potential for creating aesthetic elements that can be applied to batik art. Therefore, this research aims to explore the aesthetic elements of the Serdang motif and Malay ornaments as materials for creating hand-painted batik and to assess the aesthetic value of the resulting hand-painted batik with the Serdang motif and Malay ornaments. Consequently, this research also contributes to the community's ability to develop batik art based on the local culture of Deli Serdang, supporting economic growth and tourism development in Deli Serdang, North Sumatra.

2 Review of Literature

2.1. Ornament

Ornaments, or decorative elements, are components of artistic products intentionally added for the purpose of embellishment, with an aesthetic quality (Gondoputranto, O., & Dibia, I. W., 2022)^[7]. Ornaments have evolved since ancient times, as seen in various pictorial languages or pictograms. Pictorial languages are tools of communication through pictorial motifs that still require interpretation to convey their intended message (Saragi, 2018)^[8]. From these pictograms, motifs are created and utilized in various contexts. These ornaments have thrived in the Nusantara region. One characteristic of Nusantara art is the rarity of empty spaces; everything is filled with sometimes seemingly excessive ornaments. In filling these spaces, Nusantara art often involves stylizing and decorative transformations. Each ornament in Nusantara culture invariably carries specific meanings and functions (Irwansyah, M., Sahputra, Z., Edytia, M. H. A., & Andeska, N., 2022)^[9].

The primary function of ornaments, based on their definition, is to enhance the beauty of an object, item, or article. While the object may already be beautiful, it is expected to become even more so

after the addition of an ornament (Senoprabowo, A., & Putra, T. P., 2020) ^[1]. The incorporation of ornaments generally makes the appearance more appealing, thus increasing its value. This can lead to a greater appreciation for the product. Additionally, the functions of ornaments can be simplified into several categories: aesthetic function, utilitarian function, individual function, and social function (Andeska, N., & Ghifari, M., 2022) ^[10]. The highest function is the spiritual function, evident in the fundamental role of Nusantara ornaments in evoking emotional responsiveness, fostering a balance between individual and collective life with nature and the creator. In contemporary ornament development, the symbolic function, particularly in indicating specific social status and ranks, is prominent.

2.2. Motif

A motif and its pattern are the basic themes or ideas of an ornament (Fadillah, I. Z., & Naam, M. F., 2022) ^[11]. In a broader sense, a motif is a pictorial framework serving as the foundation for the entire ornament's realization. Motifs can be recognized because their manifestations are typically adaptations of observable forms in nature. However, there are also those born of imagination or abstraction, commonly referred to as abstract motifs. Broadly, motifs can be divided into two groups: geometric motifs and non-geometric motifs. From non-geometric motifs, numerous types of motifs emerge, such as human motifs, animal motifs, plant motifs, natural object motifs, technological object motifs, and calligraphic motifs. Within ornamentation, the structured repetition of motifs is referred to as a pattern. The broader definition of ornamental patterns involves fundamental elements derived from specific decorative motifs, utilized as guidelines for composing an ornament (Saragi, 2018) ^[8]. The repetition of motifs to form a pattern can occur horizontally, vertically, or diagonally. A pattern, which is a composition of motifs, can be repeated to create a new motif. However, in various literature, batik motifs are also referred to as batik patterns or batik designs.

2.3. Serdang Motif

This research is based on a specific theory regarding the Serdang motif, originating from the creative thoughts and ideas of the Malay community in Deli Serdang. Based on the obtained references, several Serdang motifs were used as references in the process of exploring and engineering batik motifs (Saragi, 2017) ^[12]. The distinctive feature of the support community's Serdang motifs is the structural arrangement of flora elements, which can be stylized to produce various designs. Traditionally, Serdang is a woven product based on the hand skills of Batak women, known to have originated from the myth of Si Boru Deang Parujar (Mother of the Universe) (Takari, M., 2009) ^[13]. Serdang is realized in three colors: black, red, and white. Serdang is always used in various customary ceremonies such as childbirth, marriage, moving into a new house, death, and others (Silalahi, J. I., 2020) ^[14]. In each customary event, the use of Serdang also has usage rules tailored to the type of event, the status or age of the wearer, and gender (Zulikifli, 2016) ^[15].

The Batak Serdang motif serves as a source of ideas and inspiration in the process of creating batik. Research with titles such as "Traditional Batak Ornaments in Batik Technique" by (Atmojo, 2010) ^[16], "Exploration and Implementation of North Sumatra Ornaments in Batik Art" by Misgiya (2018) ^[17], and "The Creation of Batik Based On Ulos Motifs" by (Atmojo, W. T., Misgiya, &

Wiratma, S., 2022) [6]. Became sources of inspiration and references for researchers to develop the distinctive Serdang batik motif as an innovative design development. Based on this inspiration, the researcher concludes that the aesthetic elements of the Serdang motif can also be processed and developed into batik technique. The aesthetic elements of the Serdang motif, developed through batik technique, result in hand-painted batik with a resist dye and coletan technique using naphthol and remasol dyes in the characteristic Batak colors of red, black, and white.

The aesthetic elements of the Serdang motif, characteristic of the Deli Serdang region, represent a local cultural resource worthy of reference in the research process. This encourages the development of a batik art-based business with a creative and innovative Deli Malay ethnic style and design process, applying proportional elements and principles of visual art design between each other. Therefore, novel forms of art can be continuously obtained, adhering to traditional Malay ethnic art forms, which can then be applied to the broad development of batik art, particularly in hand-painted batik based on ethnic art, thereby enriching the treasury of Indonesian batik art with the distinctive style of local culture. The following presents various aesthetic elements of Malay ornaments and Serdang motifs specific to the Deli Serdang region as a visual review of different motif forms with high aesthetic value.



Fig. 1. Form of Malay Ornaments from Deli Serdang



Fig. 2. Serdang Motif Inspiration

In addition to focusing on the theory of the Serdang motif, the researcher, in this case, highlights the theory of batik, specifically, which is a fabric resulting from a dyeing process that technically involves resist dyeing or blocking with a resist dye substance (naphthol) and features distinctive ornamental patterns (Ngatini, N., Putri, M. M., Ibrahim, M. F., Bariyah, T., & Mardhiyyah, Y. S., 2020) ^[18]. The process of hand-painted batik is quite time-consuming and requires patience and precision in every step. This is supported by BSN (2014), which explains that hand-painted batik, according to SNI 0329:2014, is an art form in which a tool called a "canting" is used to apply wax or wax on the fabric according to specific predetermined parts. This research in creating applied products involves the creation of batik art by applying aesthetic elements of Malay ornaments and Serdang motifs. The raw material used is white mori cloth with a specific weaving structure and width tailored to batik use. Based on its construction, the quality of mori cloth is classified into three main levels: primisima (fine); prima (medium); and blue cloth (coarse) (Maghfiroh, L., & Widowati, W., 2020) ^[19]. Another raw material is batik wax or "malam," which serves as a resist substance used to create motifs by resisting or separating colors. The batik dye used is synthetic dye, such as remasol.

Towards the end of the theoretical discussion, the researcher reinforces the research foundation by emphasizing the importance of design innovation. Design plays a crucial role in implementing the results of the batik-making process. (John A. Walker, 1989) ^[20] explains that all artists are bound by design as part of their creative activities, which tend to point towards the art of designing. Design is a universal process for creating various forms of art and broadly encompasses various material cultural outcomes, both from the past, present, and future (Kumar, S., Gopi, T., Harikeerthana, N., Gupta, M. K., Gaur, V., Krolczyk, G. M., & Wu, C., 2023) ^[21]. Design is created by focusing on problem-solving actions, allowing the resulting design to be accepted and appreciated by the wider community.

3 Methodology

The method used in this research is creative research. Creative research is a research approach that follows a development scheme and has previously conducted applied research (art and design as capability), resulting in tangible forms of work, models, prototypes, and prototypes that have been tested in real environments (Utami, S., Ariesta, I. B. B., & Dewi, N. A. P., 2022) ^[22]. Creative research, also known as practice-led research, is carried out using a specific method, involving a structured creative process with specific stages. Creative research is characterized by a focus on the practice of creating artworks. Researchers must design research components and elements according to the objectives, gather data to support the creative process, and describe the artistic work process to create the resulting artwork (Sugiyono, 2020) ^[23].

The creative method is implemented through specific stages, as follows:

- a) Creation Process – This process involves several stages: (1) Preparation stage, including observation and analysis activities. In this stage, the researcher conducts preliminary research on the aesthetic elements of Malay ornaments and Serdang motifs (identification, classification, and exploration). (2) Imagination stage, which is the process of imagining the aesthetic elements of Malay ornaments and Serdang motifs as inspiration for constructing concrete design forms while considering design principles. (3) Development of imagination focused on the aesthetic elements of Malay ornaments and Serdang motifs as complete designs. (4) Prototype development stage, which involves the implementation of engineering design based on Malay ornaments and Serdang motifs, starting from the waxing process to coloring and de-waxing.
- b) Testing the Artwork – The aim is to evaluate the quality of the creation through aesthetic assessments using two specific methods: assessment by competent critics and assessment by general observers based on their individual tastes and aesthetics.

4 Results

Designing Batik Creation

This creative research focuses on seeking and developing the process of designing Deli Serdang Malay ornament motifs in batik. The first stage of any creation should begin with problem analysis to facilitate problem-solving. The first problem is how to create multiple batik visuals with various distinctive Deli Serdang motifs. This problem arises because creating batik works requires more than one stylized Deli Serdang motif to generate diverse variations as a form of batik motif creation innovation. The next problem is how to design motifs with pattern structures and coloring that align with the characteristics of Deli Serdang Malay ornaments. Exploring pattern structures and coloring will result in multidimensional works. To address these problems, there is a need for the development of innovative techniques that already exist and need modification.

To solve these problems, solutions are considered based on their respective needs. The first problem will be addressed by conducting numerous trials for motif processing and development, so that the resulting Deli Serdang Malay ornament motifs have their own distinctive characteristics. Experimenting with pattern development will help with pattern style and form exploration. Therefore, a concept and theme are applied to guide the creation process, ensuring that the resulting motifs are not arbitrary. Second, the creation must include color exploration. Coloring is crucial as it supports the multidimensionality of the batik work. The combination of motif processing and color processing will be the key factor that makes the creation of Deli Serdang Malay ornament batik motifs interesting. Exploring innovative techniques such as *colet* coloring, which is used to color intricate details of batik and requires multiple colors, serves as a reference for exploring various batik motif coloring techniques. Other experiments conducted include exploring unique ornament shapes that can be used as motifs. These motifs are then processed in various ways to achieve different combinations. Another experiment involves the integration of techniques, including batik tulis (hand-drawn batik) and painting, followed by exploring coloring techniques that combine previous experiments into a single batik fabric.

Results of Batik Creation

The result of this batik creation is an exploration of motif processing and development using traditional visual sources with distinctive Deli Serdang Malay ornament motifs. The surface design uses the batik tulis technique with colet coloring. The purpose of this work is to expand the interest and enthusiasm of the community, especially the younger generation, for creating batik tulis and to preserve local culture with the goal of national and international development. To achieve this goal, adjustments in the design aspects are necessary, including surface design obtained from the composition of batik motifs with stylization using hot wax application on the fabric. The process is then continued with coloring using the colet technique and enriching the batik's character with various coloring techniques that have been tested. The creation of batik motifs involves various inspirations, including traditional, surreal, imaginative, and illustrative visuals. Understanding Deli Serdang Malay motifs and how to create distinctive motifs for artwork as an innovation is essential. The batik coloring process used is colet or kuasan, which involves local color application to specific areas on the fabric, bounded by wax to prevent the color from spreading to other areas, using synthetic naphthol dye. The resulting colors are tailored to the characteristic features of Deli Serdang Malay motifs, with different color concepts and nuances.

Design Visualization and Artwork Testing

This applied product research scheme has resulted in several prototype batik tulis products with various Deli Serdang Malay motifs. Generally, batik has specific ornaments that are both geometric and non-geometric. Deli Serdang is known for its distinctive batik motif of flora, namely tree or serdang and betel leaf motifs. Flora has always been an almost constant source of inspiration. In this realization, the main motifs of flowers and leaves are depicted with illustrative and simple stylization. Supporting motifs consist of abstract, organic images resembling creeping forms to support the flora and nature theme as the distinctive characteristic of Deli Serdang Malay motifs. Here are some examples of prototype batik tulis forms resulting from the exploration of Malay ornaments and Serdang motifs using the colet technique.



Fig. 3. Batik Work Combining Serdang Motif, Tobacco Leaves, and Dot Elements with Wavy Tumpal Lines



Fig. 4. Batik Work Combining Serdang Motif, Tobacco Leaves, Betel Leaves, and Dot Elements with Triangle Tumpal Lines



Fig. 5. Batik Work Combining Serdang Motif, Tobacco Leaves, and Dot Elements with Wavy Tumpal Lines



Fig. 6. Batik Work Combining Serdang Motif, Betel Leaves, and Dot Elements with Wavy Tumpal Lines

The work in the form of batik prototypes produced in this creation research has undergone quality testing with 9 aspects of batik exploration assessment. Here are the results of the quality testing of Deli Serdang Malay motif batik works.

Table. 1. The results of the quality testing of Deli Serdang Malay motif batik works.

No	Assessment Aspect	Value
1	Development/Modification of Motifs	89.50
2	Accuracy of Motif Drawings	90.00
3	Proportional Size of Motif Lines	88.50
4	Cleanliness and Neatness of Motif Drawings	91.50
5	Quality of Malam (Wax) Strokes	90.67
6	Precision of Canting Strokes	90.00
7	Uniformity and Neatness of Coloring	89.50
8	Size of the Batik Prototype	88.50
9	Batik Design Presentation	92.50
Average Total Value		90.07

Based on the quality assessment of the batik works, it is evident that several batik prototypes, which are the results of exploring Malay and Serdang ornament motifs, overall meet the criteria for diverse motif development and modification. The accuracy of motif drawings and the proportional size of motif lines are in line with the theme of the motifs and are accurate. The cleanliness, neatness, and quality of motif drawings and wax strokes appear orderly, with no visible erasures, no double lines, and nearly 90% of the motif drawings are clean. The precision, evenness of canting strokes, and coloring show no double lines, there are no excessive wax stroke spills on the motifs, and the strokes are accurate according to the design. The coloring is uniform, strong, without smudges, and no colors bleed into each other during the waxing process. The coloring adheres to the specified colet coloring technique. The batik material is clean, the coloring is neat without leakage, and there are no unnecessary color drops. The size of the batik prototype is proportional, and the batik design presentation is precise, featuring an attractive combination of designs and colors, avoiding monotony with a variety of colors. The fully explored batik motifs are meticulously and robustly applied to the fabric with a proportional spacing. As a result, the average quality assessment score is 90.07.

5 Conclusion

This creative research has focused on seeking and developing the design process for Malay Deli Serdang ornament batik motifs. The resulting batik creation is an outcome of exploring the processing and development of batik motifs with traditional visual sources characterized by Malay Deli Serdang ornaments. The surface design of the batik is created using the technique of batik tulis with colet coloring technique. The design of this batik fabric is based on visual sources derived from surreal, imaginative, and illustrative visuals. Therefore, an analysis was conducted regarding the Malay Deli Serdang motifs and how to generate unique motif characteristics for the creation of innovative works.

This applied product research scheme has yielded several prototype batik tulis products with various Malay Deli Serdang motifs. The Deli Serdang region is known for its distinctive flora batik motifs, featuring motifs of trees, serdang leaves, and betel leaves. Flora has consistently been a source of inspiration that almost always emerges. In this realization, the primary motifs of flowers and leaves are depicted with an illustrative and simple stylized approach. Supporting motifs consist of organic abstract images that resemble creeping forms, enhancing the theme of flora and nature as characteristic features of Malay Deli Serdang motifs.

Based on the quality assessment results of the batik works, it is evident that several batik prototypes, which are the results of exploring Malay and Serdang ornament motifs, overall meet the criteria for diverse motif development and modification, with an average quality assessment score of 90.07.

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