

## Contemporary Textile Design Creation Sourced from Visual Aesthetics of *Kawung* Motif Classical Batik

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The development of contemporary art and design is a dynamic reflection of social values, technological advancements, cultural shifts, and evidence of the ever-changing nature of human expression. However, local identities are often not visible, and many works of art and design seem stereotypical with similar appearances. Based on these conditions, it is necessary to conduct research on art creation by exploring local cultural values as an identity. This article describes the process of creating contemporary textile designs sourced from the visual aesthetics of classic batik *Kawung* motifs, which are full of aesthetic value. The art creation method is carried out by collecting information about the visual aesthetics of classic batik *Kawung* motifs, exploring ideas based on visual aesthetics in *Kawung* batik motifs, developing creation ideas through design experiments, and realizing textile designs into fabric prototypes. The results of this study include (1) analysis of basic ornaments of geometry, repetition patterns, and symmetrical compositions in *Kawung* classic batik motifs, (2) the process of embodiment of contemporary textile design with the concept of transformation geometry through rotation, reflection to create rhythm and composition, as well as translation and dilatation to find the artistic value of shapes, (3) descriptions of the form of contemporary textile design works that have been produced. The study results show that classic batik's aesthetic value is a potential source of ideas for creating contemporary textile designs. Through a formalistic study of *Kawung* classic batik motifs, a method of making ornaments with transformative geometry techniques was found as a guideline and formulation for creating contemporary textile designs. Local values in the *Kawung* motif, such as the pattern of rotation, reflection, rhythm, and recomposition of geometric shapes, are still relevant and contextual with the development of the times. Thus, it is essential to use it as a source of inspiration for creating contemporary textile designs with a strong identity.

**Keywords:** *motif, classical batik, textile design, contemporary*

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## INTRODUCTION

Contemporary art, including crafts and textile design, has developed with modern times. Contemporary art is a dynamic reflection of social values, technological advancements, cultural shifts, and evidence of the ever-changing nature of human expression. From abstract expressionism to digital art, contemporary art encompasses a diverse range of styles, media, and concepts that reflect the complexities of modern life. Art that serves as a mirror for our collective consciousness develops as society develops. *Contemporary art* is a field that has many facets that reflect and respond to the ever-changing socio-cultural landscape (Kakarla, 2024). His creative ideas often use strategies to borrow forms from different cultures. Technological imagery, such as speed, simplicity, rationality, metallic impression, and accuracy expressed through shapes, lines, colours, and materials in fine artworks, is a new visual aspect. However, local identities in contemporary art are often invisible, resulting in artworks that appear stereotypical and have a similar appearance. The work of an artist or designer is almost indistinguishable from one another. In its development, contemporary craft art emphasizes many other styles and art elements, making it challenging to distinguish craft art from other types of art (Ernawati et al., 2024).

Observing this, artists, artisans, and designers need to determine the direction and development of their work. For artists, artisans, and designers living in Surakarta, it is necessary to explore the richness of traditional or classical art as a source of ideas to create works of art with identity and character. The young generation has the potential and capacity to develop local wisdom and culture because of scientific and technological advances. However, the challenge of maintaining local wisdom values is getting bigger. The increasingly massive influence of globalization colouring the dynamics of the younger generation's lives certainly has the potential to erode cultural values absorbed in daily behaviour (Takdir & Hosnan, 2021). One of Surakarta's traditional artworks that can inspire contemporary art is the classic batik, which is full of aesthetic value. For the people of Surakarta, classical batik is a skill of representation, conception, and sophistication of ideology. Classic batik motifs contain symbolic meanings that teach the values of ideals, life expectancy, existence, establishment, behaviour, nobility, and noble guidelines (Wahida et al., 2018). Batik is one of the Javanese people's mediums of expressing messages symbolically. Batik motifs are a collection of stylized ornaments with aesthetic compositions that aim to convey

messages, stories, and wise advice (Nurcahyanti et al., 2020).

During the Surakarta Hadiningrat Palace, several batik motifs were claimed to be classic batik. Batik motifs, considered classic, are used for traditional ceremonies because they contain conceptual and ideological meanings, especially in the socio-cultural life of Java (Muhadiyatiningsih & Hikmawati, 2018). Visual forms, meanings, and functions are closely related to the Javanese worldview. Seeing humans in the context of natural harmony that is well-organized, harmonious, and balanced. It creates symbolic expressions in visual form that tend to be subtle, static, or magical in patterns and colour settings (Budi, 2017).

In addition to containing symbolic meaning, classic batik has a rich surface aesthetic. Visually, there are two compositions of the surface pattern design, namely *Ceplok* and *Semen*. The *Ceplok* pattern is a type of batik with motifs and basic geometric shapes, such as square and oval. This pattern is an arrangement of ornamental shapes that are repeated (repetition) to form a complete motif on a piece of cloth. The *Ceplok* batik motif consists of main geometric shapes containing curved ornaments, spirals, dots, tendrils, or others such as flowers, plants, or *Gurda* (birds). *Semen patterns* are more dynamic motif compositions that decorate the entire sheet of fabric. The basic shape tends to be free and not fixated on geometric shapes and symmetrical balance. In some references, the term *Semen* (Java) means a flowering plant, so the *Semen* pattern represents the composition of plant shapes with dynamic stems, leaves, and flowers (Wahida et al., 2020).

Some surface patterns that affect textile design include: (1) repetition is at the core of all surface patterns. (2) the connection is the centre of the unit in repetition. (3) a sense of order – a systematic and logical structure or a different order. (4) The component in understanding surface patterns is scale, which deals with surfaces where the boundary between motifs and surface patterns is fluid. Scale is also concerned with repetition and extensive exploration (Johnstone, 2017).

Currently, the development of batik shows significant progress. They began developing conceptual artworks from practical and functional craft products with beautiful ornaments. This change is known as the phenomenon of contemporary batik art, which prioritizes individual styles in its design concepts and techniques to produce new motifs. This development has inspired many parties to process or

transform batik to create contemporary handicrafts in the spirit of the times. In addition, developing batik motifs in contemporary crafts also means loving local culture to strengthen the nation's identity and personality so that it is not eroded by global cultural currents ([Pangarsa & Agustin, 2020](#)).

Contemporary art is part of a cultural dialogue that involves larger contextual frameworks such as the identity and culture of individuals, families, communities, and nationalities. Therefore, based on the background above, the visual aesthetic value of classic batik motifs can be used as inspiration to create contemporary textile designs. Materials related to visual and aesthetic forms can be developed, expressed, and associated with the context of current needs. In this study, the development is based more on the aesthetics of the visual design of classic batik motifs rather than batik-making techniques. The visual aesthetics of classic batik motifs, especially the composition of the surface pattern design, are local wisdom that can be developed towards contemporary textile design. The making of motif designs using computer graphics and its manifestation into fabric using digital printing techniques to obtain more colourful, precise, and fast results in mass work. The consideration of choosing this digital printing technique is in line with technological advances and answers the needs of the contemporary era. Thus, the following problems can be formulated: (1) what is the process of creating contemporary textile designs based on the visual aesthetics of classic batik motifs? (2) What is the shape of the contemporary textile design produced?

The source of the idea of creating this contemporary textile design is focused on the visual aesthetics of the *Ceplok* pattern from the *Kawung* batik motif, including the study of the basic shape, main ornaments, and overall composition of the motif. The classic *Kawung* motif has the power of visual aesthetics, simple ornaments, harmonious colours, the embodiment of details, precision measurements, symmetrical patterns, and harmonious compositions. In line with a formalism that emphasizes form and visual style in artworks, exploring *Kawung* batik motifs to produce contemporary textile designs with character is possible.

## RESEARCH METHODOLOGY

The creation of this textile design uses a research method based on art practice. Research through art creation centred on 'studio/creative' projects can lead to the production and presentation of creative works.

Documentation in the process of creating artwork is a significant component of research. In the research approach through art creation, the specificity of creative practice establishes parameters and determines the methods necessary for related research. The emphasis is partly on the material of the art production process and the expansion of the contemporary cultural context in which the artist operates. Margolin (1998) describes the approach to research through art and design, centred on 'studio projects' as a practical approach to research that is not limited by traditional methodologies but seeks to 'facilitate the relationship of reflection with practice' ([Harland, 2020](#)).

Art practice-based research methods specifically address how creative works develop and expand knowledge of a particular discipline/field of artistic practice. Proving that field practice is, in a sense, refreshing by asking new questions about the formation of discourse involving materials, forms, and sources of inspiration for sustainable creative activities. It can also capture something from the 'thought structure' at work in the creative arts practice, thus revealing the artist as an intellectual ([Candy & Edmonds, 2018](#)). Research through art practice is creating and producing works of art, making cultural presentations, exploring, and transforming knowledge that occurs in the process as action research. Where knowledge is acquired as an inactive act and directly related to the creative process, the knowledge that 'emerges' may be abstract, theoretical, or practical, gained from applying evolving creative methodologies. The consequence of this methodology is the artwork itself, but it can also emerge further into the public eye through the development of practice-based research methodologies ([Dallow, 2003](#)).

The stages of research on the creation of this textile design are (1) collecting information about the visual aesthetics of *Kawung* classic batik motifs, (2) exploring ideas based on visual aesthetics in classic batik motifs, (3) developing creative ideas through visual design experiments, (4) realizing textile designs into fabric prototypes.

## PROCESS OF EMBODIMENT

### 1. Pattern Study

In the fields of design, fashion, and textiles, as defined by Day (1999), patterns are the natural result of repetition, in which a repetition system expresses construction. He states that "Technically [...], we understand patterns not only as repetitions of similar shapes but as periodic reappearances" ([Johnstone, 2017](#)). Patterns are often seen in visual sensations and arranged surfaces and are closely related to

textiles. Fenn (1993) has a similar conception of patterns, claiming that their essence is repetition, guaranteed by the production process of wallpaper and the design of printed and woven textiles, for example. From this angle, the pattern consists of mechanical repeating units that cover a small portion of the printed or woven area (Ibrahim, 2017).

Kraft (2004) discusses textile patterns and their production processes related to textile engineering, presents a defined definition of the term 'pattern', and introduces the ideas of rhythm, symmetry, repetition, and dimension regarding the term to build a scientific approach to the concept (Johnstone, 2017). Pattern recognition helps us understand and relate to the world around us. Knight discusses patterns in terms of regularity and transformation of geometric structures, arguing that "[a] pattern is a set of spatial elements: points, lines, planes, or volumes, in two or three dimensions" (Knight, 1998).

This article's definition of 'pattern' is based on the above sources. Repetition is essential for creating patterns and is the heart of all pattern designs, while joints bind the pattern unit until the pattern is created. From a psychological perspective, the sequence in the search for meaning and the search for order determines the appearance of the pattern. A systematic and logical structure facilitates understanding patterns (Araujo, 2010).

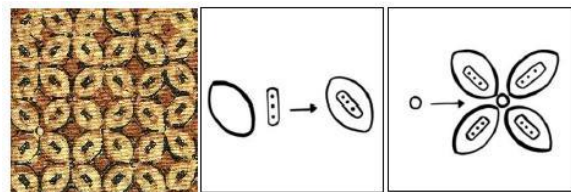
Scale is a relative degree and communicates the relationship between elements. Scaling changes mean new challenges and new design decisions. Surface patterns are considered (or interpreted) as spatial determinants, which decide (or declare/define/arrange/determine) a space or spatial area. Conceptual spatial determination is a tool in the design process to explore how surface patterns can clarify spatial relationships. Pattern relationships are concepts in some regulatory contexts and have meaning, such as in mathematics and geometry (Mitchell, 2014). In this article, the term 'pattern relationship' refers to the relationship between surface patterns and spatial areas.

## 2. Study of the Visual Form of Classic Batik Motifs

The study of the visual form of classical batik motifs focuses on the *Ceplok* pattern of the *Kawung* motif, based on the harmony between the repetitive *Ceplok* pattern and the *Kawung* motif's geometric ornaments. Geometric shapes are inseparable from traditional societies' symbolic views and philosophical values. The study of geometric shapes in *Kawung* batik has received particular attention in ethnomathematics, which examines the relationship

between mathematics and cultural practices, which play the role of learning and cognitive methods. Through ethnomathematics, various aspects of mathematics are the elements that make up the *Kawung* motif (Christanti et al., 2020).

Overall, the *Kawung* motif consists of core ornaments arranged repeatedly up and down, left and right, forming a symmetrical composition arranged mathematically. The colour tends to be harmonious, namely brown and ochre with black stripes. The main shape of the ornament is a combination of elliptical and rectangular arranged four diagonals. There is a small circle in the middle of the intersection of the four elliptical planes. Therefore, in the pattern of compiling *Kawung* batik motifs, it can be seen that there is a transformative processing of geometry (Pradanti & Sari, 2016).



**Figure 1.** *Kawung* motif (left), a version cut from the original, Sketch the shape of the basic ornament (right).

(Source: Ian Alexander

[https://commons.wikimedia.org/wiki/File:Coffee\\_Bean\\_Batik\\_sarong\\_Indonesia.jpg](https://commons.wikimedia.org/wiki/File:Coffee_Bean_Batik_sarong_Indonesia.jpg), Adam Wahida)

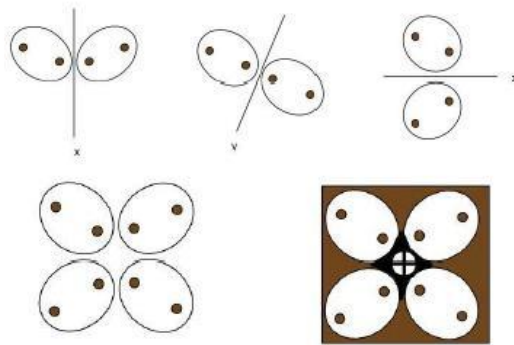
Transformation geometry is the part of geometry that deals with transformations (changes), location changes, and presentations based on images and matrices. The concept of transformation provides a knowledge background to develop new perspectives in visualization skills (Anggraeni et al., 2018).

## 3. Idea Manifestation

Observing the potential of geometric shapes in *Kawung* batik, the pattern design is arranged through geometric transformations, emphasizing the composition (location and image) to present a more innovative visualization of batik motifs. The first stage of realizing the idea of art creation is to analyze the surface of *Kawung* batik motifs through a transformative geometry approach. The geometry of transformation in *Kawung* batik motifs is rotation and mirroring. The main element of the *Kawung* motif is the flat, elliptical shape. The elliptical used is horizontal. The result of the elliptical rotation



around the centre point has a rotation angle of  $45^\circ$  then rotated  $90^\circ$ ,  $180^\circ$ , and  $270^\circ$ .



**Figure 2.** Geometric basic shapes in *Kawung* motifs.

The shape of the ornament in *the Kawung* motif is made by rotating the ellipse, sliding it diagonally, and then reflecting it on the horizon side. The pattern is balanced between two planes and replayed vertically to obtain a symmetrical composition format. So mathematically, the elliptical geometry on *Kawung* batik transforms to produce a distinctive ornament. This transformation model includes fundamental activities in mathematics, especially regarding design (Pradanti & Sari, 2016), and is a general reference in analysing classical batik motifs (Anggraeni et al., 2018), especially *the Ceplok* pattern. The decomposition of the shape of *the Kawung* motif into an arrangement of ornaments is done to restore the fundamental essence of geometry and explore the possibility of developing basic ornaments and batik motifs through a transformative geometry approach.

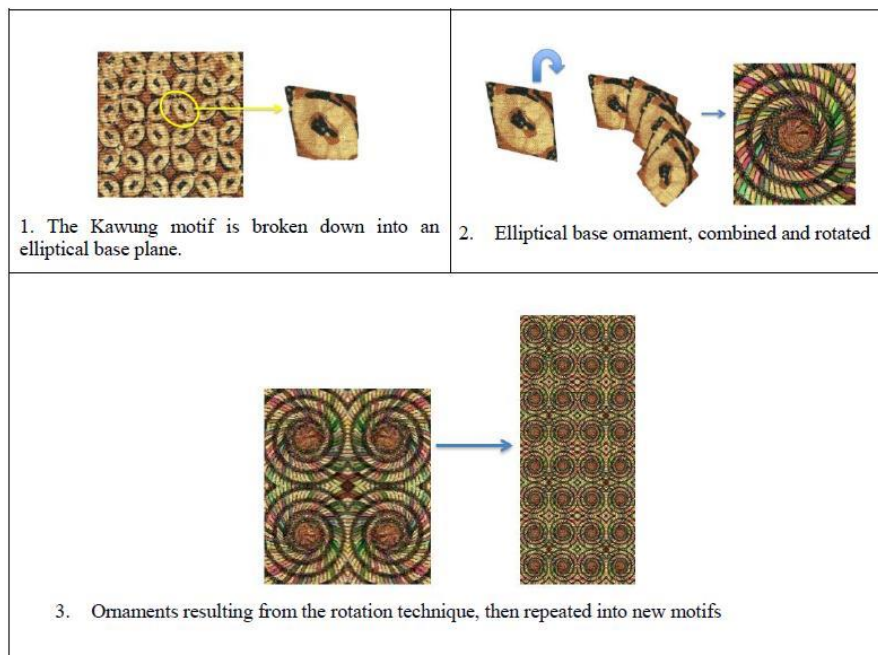
Based on the decomposition of the ornaments on *the Kawung* batik motif (figure 2), *the Kawung* motif pattern uses rotation, mirroring (reflection/flip), and repetition techniques. Based on the above study, transformative geometry can be an idea for developing new motif designs, especially in contemporary textile design. Furthermore, a visual design experiment was carried out by making alternative designs through rotation and reflection to create rhythm and recomposition of the basic ornaments of *Kawung* batik motifs in contemporary

textile designs. In addition, translation and widening techniques are used in several ways to find artistic value. *Translation* is a geometric transformation that moves each point of an image or space at the same distance in each direction. Meanwhile, dilation is to change the size but not the shape of an object or shape.

#### a. Rotation and Recomposition

Rotation is the act of rotating the shape of an ornament at a certain angle to create variations or align them in a certain way in the design of the motif. Rotation is often used in symmetrical patterns, where shapes or motifs are rotated periodically around a central point. Recomposition refers to rearranging or changing the composition of pattern elements to create or refine an existing design. This involves changing the position of the motif, adjusting its scale, or changing each element interacting with each other. Recomposition can involve layering elements or motifs that are rotated on top of each other to create depth and complexity in a pattern. The pattern consists of multiple layers of rotated elements combined in different ways to produce the final design.

The method used to develop this contemporary textile design is transformative geometry through rotation and mirroring to create new ornaments and motifs. The textile design process is done by breaking ornaments into elliptical shapes and changing repeating patterns to produce new compositions (re-composition). The ornamental pattern in the classic *Kawung* batik motif is vertical-horizontal, while the ornamental pattern in this textile design is a spiral. The steps are (1) Decomposing *the Kawung* ornament into elliptical geometric planes. (2) Arrange and rearrange this elliptic by rotation method (rotated at an angle as an axis, with a rotation of  $6.5^\circ$  through 5 repetitions) and then arrange it with a spiral composition. (3) After the shape produces a new ornament, the ornament is duplicated to produce a contemporary textile design.

**Table 1.** The process of realizing the idea of twisting and rearranging ornaments.

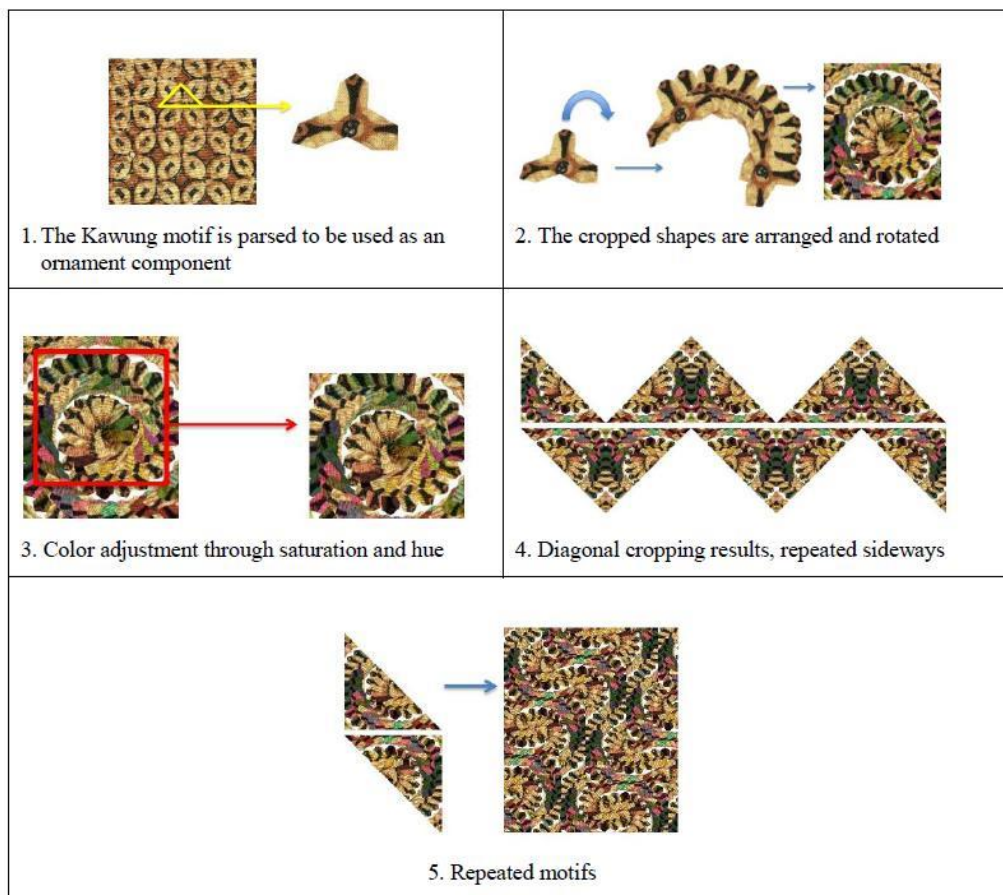
### b. Rotation and Rhythm

Rotation is the act of rotating the shape of an ornament at a certain angle to create variations or align them in a certain way in the design of the motif. Rotation is often used in symmetrical patterns, where shapes or motifs are rotated periodically around a central point. Rotation can create symmetry, where motifs repeat circularly even to radial symmetry. Rotation can be consistent or varied, giving the impression of rhythmic movement or flow to a pattern as the eye follows the elements rotated around the central point. Rhythm in a pattern refers to the repetition or alternation of elements, creating the impression of movement or flow in the design. Rhythm is often achieved through regular repetition of motifs, spaced evenly or with variation. This repetition can create a predictable and harmonious flow. Changing the size, colour, or spacing of repetitive elements can introduce a more dynamic and less predictable rhythm, adding interest and complexity to the pattern.

In this process, the emphasis of the design idea is to break down the shape of the ornament into

geometric shapes, namely by cutting the centre of the four ellipticals on the *Kawung* ornament. They arrange the pieces of geometric shapes in circles in a clockwise rhythmic pattern. The recomposition is to bring the impression of a more dynamic movement.

The following are the steps to realize the design idea: (1) Unraveling the *Kawung* motif in a geometric structure resulting from meeting the main shapes (ellipticals). (2) After the lines and shapes in the ornament are selected, the geometric shapes are rotated and rearranged to form a spiral line to produce a new ornamental composition and pattern. (3) Adjust the colour to specify the pattern and contour line between the ornament patterns. (4) The ornamental pattern is cut diagonally and then repeated to the side, up, and down to produce a more dynamic cut. (5) After the arrangement of the ornaments (initial motifs) is cut diagonally and then rearranged into a new series of motifs. The composition of this diagonal plane emphasizes the processing of the rhythm of the ornament to create a more rhythmic and dynamic motif.

**Table 2.** The process of realizing the idea of ornamental shapes through rotation and rhythm techniques.

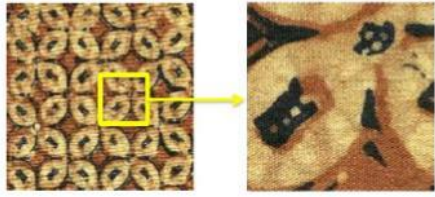
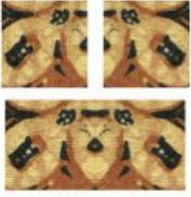


### c. Reflection and Recomposition

Reflection in a pattern involves flipping a motif or design element along an axis, creating a mirror image of the original. Reflection is often used to create symmetrical patterns. When a motif is reflected across an axis (horizontal, vertical, or diagonal), it creates a balanced and harmonious design. This technique can fill space efficiently while maintaining a cohesive appearance. Recomposition refers to rearranging or reconfiguring pattern elements to create a new design. This often involves breaking the pattern into constituent parts and then reassembling it differently. Recomposition allows us to explore new ways to organize pattern elements. In compositing, the pattern can be broken down into modules or units that can be rearranged to form a new pattern. This modularity allows for endless variation of a set of elements. Recomposition can add complexity to a pattern, making it more complex and detailed. When reflection and compositing are used together, they can create

very dynamic and diverse patterns. For example, motifs can be reflected along multiple axes and rearranged to form complex tessellations. This combination allows for a high level of customization and can be used to create visually and structurally appealing patterns.

In the design of this motif, in addition to using transformative geometric techniques such as rotation, it also emphasizes mirroring techniques to produce new compositions (re-composition) of the arrangement of ornaments in *Kawung* batik motifs. The steps taken are (1). It is unravelling the *Kawung* motif from the structure of geometric shapes, including ellipses. (2). After determining the geometric plane, this plane is duplicated and reflected horizontally to form an ornament. (3). The arrangement of the basic ornaments is then reflected vertically and duplicated. (4). Color arrangement in the design to find the composition according to the surface quality of contemporary textiles.

**Table 3.** The process of realizing ornamental design through mirroring and re-composition techniques.

 <p>1. Cropping basic ornaments</p>	 <p>2. The result of cropping basic ornaments in mirroring</p>
 <p>3. Mirroring results are duplicated and repeated</p>	 <p>4. Setting the color of the motif design</p>

#### d. Reflection and Rhythm

Reflection and rhythm are two crucial concepts in pattern design, each contributing uniquely to the visual appeal and structure of the pattern. When combined, it can create a balanced and dynamic pattern. Reflection in a pattern involves flipping a design element or motif along an axis to create a mirror shadow. This technique is used to produce symmetry and balance in a pattern. Reflection is often used to create symmetrical patterns. When a motif is reflected across an axis (horizontal, vertical, or diagonal), it creates a balanced and harmonious design. Reflecting motifs can effectively double the visual interest without introducing new elements, which helps to create a balanced design. This technique is instrumental in filling up space while maintaining a cohesive look. Rhythm in a pattern refers to the repetition or alternation of elements, creating a sense of movement, flow, or progression in a design. The rhythm is established through the regular repetition of motifs or design elements. These repetitions can be uniform, creating a stable and predictable pattern, or they can vary, introducing dynamism and complexity. The rhythmic pattern guides the viewer's eye across the design, creating a sense of movement. These movements can be smooth and gentle or bold and dynamic, depending on how the rhythm is arranged. Rhythm helps create a balanced pattern by distributing visual weight evenly throughout the design. This ensures that no part of the pattern feels too heavy or too light, contributing to a harmonious overall look. When reflection and

rhythm are combined, it creates a structured and dynamic pattern. Motifs can be mirrored to create symmetry and repeated rhythmically to build a flow throughout the design. This combination can produce visually appealing patterns with a balance of stability (from reflection) and movement (from rhythm). In textile design, the reflected motif can be repeated rhythmically throughout the fabric to create a symmetrical, flowing, repeating pattern.

One of the transformative geometric potentials in *Kawung* batik ornaments is the arrangement of geometric shape composition patterns, especially in the reflection technique. The composition of rhythmic patterns results from reflection on the dynamics of shapes, spaces, and the illusion of spatial (spatial) dimensions. The following contemporary textile design emphasizes rhythmic ornamental compositions to accentuate the quality of spatial dimensions and spatial illusions on the resulting textile surface.

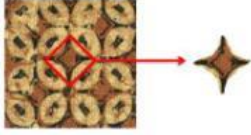
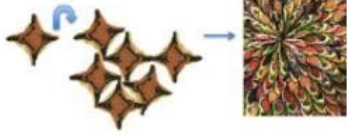
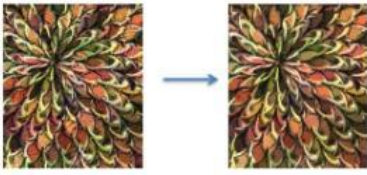
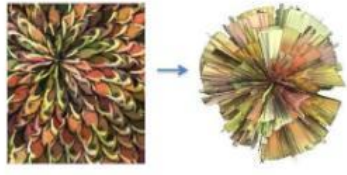
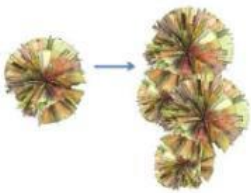
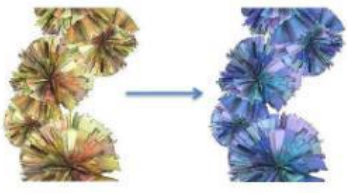
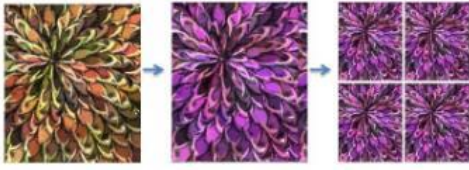
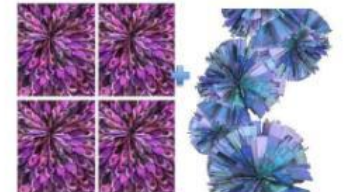

The techniques used are (1). They unravel *the Kawung* motif in its geometric plane structure, including the plane formed from the elliptical composition. (2) The selected geometric shapes are rotated and mirrored, intertwined to form a circular arrangement. (3). Adjust the colour to define more dynamic patterns and contour lines. (4). After the pattern and composition of the ornament are determined, change the composition by adding a 3D effect to create colour gradations, the illusion of depth, and spatial dimensions. This processing uses the help of digital imaging applications. (5) Once the ornament in the 3D effect is generated, the next step



is to duplicate it and set it to produce a pattern. (6) The composition of the ornament is then processed through saturation and hue settings. (7). The next stage is to colour the ornament as the background of the motif so that it is by the desired motif design (4

parts into 1). Then, combine the 2D ornament with the initial base of the ornament before transforming it with a 3D effect (combining 2D and 3D ornaments).

**Table 4.** The process of realizing the design uses reflection and rhythm techniques.

 <p>1. Cropping the rhombus on the Kawung motif</p>	 <p>2. Rotating the arrangement of the rhombus fields</p>
 <p>3. Color and line settings</p>	 <p>4. Changes from 2D images and 3D effects to support spatial dimensions and provide depth of space.</p>
 <p>5. Duplicate the ornament</p>	 <p>6. Adjust color through saturation and hue</p>
 <p>7. Processing the color on the background</p>	 <p>8. Combining the shapes of 2D ornaments and 3D ornaments</p>
 <p>9. The result of combining the core ornament and background ornament (2D+3D)</p>	

## RESULT AND DISCUSSION

The following are some textile design works produced through the studio-based art creation process. The technique of transforming the design into a prototype uses sublime printing on the velvet polyester fabric with a semi-polished surface and a striped texture. Sublime printing is one of the methods of making moulds that use modern technology. In doing sublime printing, several tools are needed, such as a press with a specific temperature used for heat press, transfer paper or transfer paper, and sublime ink. This method makes it possible to create highly detailed and precise moulds and makes the production process much faster and more efficient. The sublimation ink used for printing can evaporate at high temperatures and adhere to the fabric fibres to create a durable and sharp print.



**Figure 3.** Process of sublime printing.

The first step in the sublime printing technique with paper transfer is to print the design on the transfer paper using a particular printer. This printer can print designs with ink transfer, which allows the design to be applied to the fabric's surface correctly. Once the design is printed, the transfer paper is positioned on the fabric's surface. Then, the material is applied to the transfer paper using the correct pressure and temperature. This process ensures that the design is correctly attached to the fabric's surface and that the mould is detailed and high-quality. This sublimation method has advantages such as: 1) easy to operate, simple and practical; 2) able to print large quantities with the same quality; 3) prints dry faster; 4) uses sublime ink that does not fade, stronger colour gradation, and can transfer colours according to the design.



**Figure 4.** Textile design titled *Sumebar*, 120 x 160 cm, textile paint on fabric.

Geometric ornaments inspired the idea behind making this *Sumebar* in *Kawung*'s classic batik textile design. The motif pattern decomposes *Kawung* batik motifs with transformative geometric techniques, especially on the intersecting lines between the geometric plane arrangements. The line axes resulting from the meeting of geometric plane motifs are then reformatted to produce new pattern compositions and motifs. The pieces of the line axis are arranged in a spiral shape. Change the colour to emphasize the contrast and bring out new colours. The arrangement of the circular plane is then cut diagonally to produce a rhombus plane. It is then duplicated and set repeatedly to a dynamic motion composition. The impression of an illusory spreading shape is generated by repeating the shape of the axis cut from *the Kawung* batik motif.

This idea of orientation for making textile designs and changing and developing motifs from geometric flat plane elements also emphasizes ornamental patterns that present motifs. Visually, the rhythm of *Kawung* batik motifs, which tends to be static, linear, constant, balanced, and proportional, implies a philosophical idea of consistency. In art rules, aspects of formalism, such as rhythm, are essential in creating the dynamics of a field or form. In textile design work, rhythm is used to arrange fabric ornamental patterns. This textile design is based on visual rhythm as the key to developing innovative batik motif designs. The composition of *Kawung* motifs, which were initially repetitive and static,

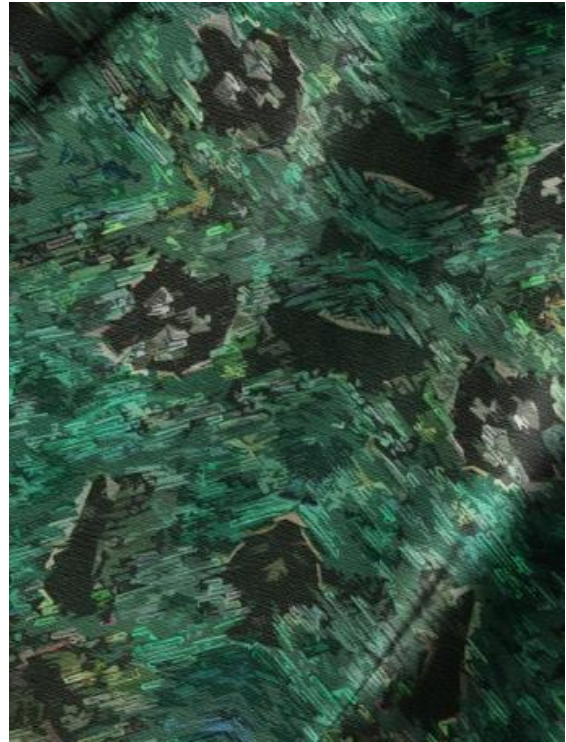


became more expressive without leaving the artistic-aesthetic principle.



**Figure 5.** Textile design titled *Puser Bumi*, 120 x 160 cm, textile paint on fabric.

It is making a contemporary textile design titled *Puser Bumi*, which processes the basic elliptical structure of the classic Kawung batik motif. This elliptical shape refers to the contents of the Kolang-Kaling fruit, just like the classic Kawung batik motif idea. This elliptical shape was then reformatted to form a contemporary textile design motif pattern. The recomposition technique is used to arrange ellipses in spirals, circles, and piles, layer by layer until they form a circle. Then, it was duplicated several times to produce a new arrangement of motifs. The colour changes to form a more dynamic motif composition. Thus, contemporary textile motifs are circular blocks with the illusion of lines from the repetition of spirals.



**Figure 6.** Textile design titled *Lumuten*, 120 x 160 cm, textile paint on fabric.

This textile design idea is titled *Lumuten* from the classic Kawung batik motif, consisting of ellipses, rhombuses, rectangles, and circles. The development pattern is a geometric transformation approach using cropping and mirroring techniques. The elliptical shape of the Kawung batik motif is then cut diagonally to produce two pieces. It is then duplicated, rotated, and mirrored vertically so that it becomes six elliptical planes that meet each other at the ends of the axis of rotation. New ornaments are then duplicated and repeated to produce dynamic compositions of contemporary textile designs. The classic Kawung batik colour motif, synonymous with earth, brown, and ochre, has been changed to a dominant green colour to give a more natural and elegant feel. The choice of colour by moss plants is scattered on the tree trunk.



**Figure 7.** Textile design titled *Kawung Nggrompol*, 120 x 160 cm, textile paint on fabric.

The idea of making a textile design is titled *Kawung Nggrompol* from *Kolang-kaling* fruit. The clusters of leaves and fruits clustered on the *Kolang-Kaling* tree show bright and dynamic colours. The embodiment technique of this textile design is with elliptical planes, rhombuses, and circles that are rearranged in a circle and stacked several layers to form a spiral. Ornaments are given a 3D effect on the impression of space and the contrast of lines and planes to create a point of interest in the work. The colour processing of classic batik with earth colours (brown, ochre, black, and white) into pink, purple, white, and crystal impressions to represent the landscape and scenery of *Kolang-Kaling* trees while emphasizing contemporary textile design.

The creation of a contemporary textile design that prioritizes the surface quality and structure of the *Kawung* batik motif mentioned above is an effort to revive the idea of making ornaments in geometric flat areas. Transformative geometry techniques can be used to study and create changes in basic geometric shapes in *Kawung* batik motifs. In addition, it can be a guideline for creating contemporary textile motif designs.

## CONCLUSION

Based on the realization process and textile design works discussed in the previous section, the aesthetic value of classic batik is a potential source of ideas for creating contemporary textile designs. A

formalistic study of *Kawung's* classic batik motifs found a method of making ornaments with transformative geometry techniques. Geometric transformation techniques, such as rotation and recomposition, rotation and rhythm, reflection and recomposition, and reflection and rhythm, are all interconnected in pattern design, each offering a unique way to manipulate and create intricate and dynamic patterns. Rotation and recomposition can rotate motifs around a centre point or axis to create circular or angular symmetry and rearrange and reconfigure pattern elements to form new designs. Using rotation in recomposition allows designers to create patterns in which motifs are rotated and then rearranged to form complex non-linear designs. These combinations can lead to intricate patterns that maintain a sense of unity through repetition and rotation but offer variety through recomposition. Rotation and rhythm can involve the reversal of motifs at different angles and refer to the repetition or alternation of elements in a pattern. The combination of rotation and rhythm adds a dynamic quality to the rhythmic repetition of the motif, creating a pattern that guides the viewer's eye in a circular or flowing motion. This combination effectively produces structured and vivid patterns, balancing predictability with visual interest. Reflection and recomposition can flip motifs along the axis to create mirror shadows and rearrange pattern elements to form new designs. Reflection can be used in recomposition to create rearranged symmetrical patterns to form more complex designs. These pairs help create balanced patterns through symmetry and offer variety and complexity through decomposition. Reflections and rhythms can create symmetry by reflecting elements across axes involving repetition or variations of elements. Reflection provides symmetry and balance, while rhythm introduces a sense of flow and movement. The combination creates an orderly and dynamic pattern, with repeating mirror elements that guide the viewer's eye across the design. Using these four techniques allows device designers to create aesthetically and structurally pleasing patterns, providing limitless creative possibilities. As such, this transformative geometry technique can serve as a guideline and formulation in creating contemporary textile designs. These results show that the formalistic study of geometric shapes in classical batik motifs remains relevant and contextual to the development of contemporary artworks.

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