Applied Optical Art in the *Parang* Motif on Classical Javanese Batik

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Abstract. The *parang* motif is a classical batik motif that has been a product of Javanese culture for centuries. In the past, this motif was classed as "batik *larangan*", which meant it was only allowed to be worn by Javanese kings. The *parang* motif is a geometric pattern, an abstraction of rows of large knives (*parang*) arranged with great accuracy at an angle of 45 degrees. In modern aesthetics, it is regarded as a traditional work with potential as an optical art that can conjure up an illusory image. The specifications of its illusive nuance will emerge when it is used as clothing, creating a taller, slimmer, dynamic, and elegant appearance.

Keywords: Batik, Classic, Javanese, Parang motif, Optical Art.

1 Introduction

"Batik" is a clothing product of old Indonesian Javanese culture, which is believed to be a reflection of the sophistication of the skills, conceptions, and ideology of its community. The recognition by UNESCO on 2 October 2009 of Indonesian batik as a *Masterpiece of the Oral and Intangible Cultural Heritage of Humanity* [1] is evidence that batik is no simply a matter of cultural area but also contains universal values of virtue and wisdom for humanity. In a technical context, a number of Javanese batik motifs have already reached a classical level, where the understanding of classical batik is interpreted as the pinnacle of achievement of its expressional representation. The aesthetical performance of its presentation cannot be improved any further, other than to become a source of ideas, inspiration, and development for other works of batik art that are created at a later point in time.

The artworks of the ancient Javanese, which are described as *kagunan* (inter-functional) [2], are not merely appreciative works that go no further than the wall of the showroom. They are much more than that, in the sense that they can be connected to magical ritual activities or used a part of a traditional procession. This can be seen in various Javanese traditional rituals, which use batik cloth as ritual cloth or clothing worn by those supporting the procession. Therefore, considerations of type, form, symbol, and meaning of the motif used are extremely precise and complex, depending on the context and purpose of the ritual. The effort to understand the sense of quality of a work cannot be separated from its basic thought pattern and existential system [3]; this is also the case with Javanese batik, which cannot be fully understood without taking into account the context of the situation in which it is worn.

Art is tied to truth. The adequate expression of truth can only be thought, which communicates itself in ideally clear and distinct propositions. Art is essentially sensuous [4]. In the context of Contemporary Art, the 'classicness' of Javanese batik must always have the

potential to be revisited, to have new variants developed, and to become a source of inspiration for the creation of new works. It is these challenges of the times that serve as the foundation for studies of classical Javanese batik, especially the motifs that in the past were most revered, held in high esteem, and worn exclusively by kings, while being 'prohibited' to be worn by ordinary people.

2 Method

Studies about cultural products that focus on idea and expression always require a historical approach, especially the context of space and time in the process of their creation. Things that are related to social cultural background, media specification, mastery of technique, and external target and goals to be achieved are the work systematic of a cultural intelligence system. Likewise, the phenomenon of visual history of the traditional Javanese artwork "batik" is an allegory that can be arranged to become a narrative about the historical journey of its culture. The idea that Javanese classical batik motifs belong to the domain of tradition, are something of the past, outdated, finished, and no longer need to be discussed, is an unfair claim. In order to map the exploration of its artistic potential, and the quality of its contemporary aesthetic, a theoretical study method of Iconographical Analysis is used. In his book Meaning in the Visual Art (1982: 28-41), Erwin Panofsky [5] stresses that Iconographical Analysis must pass through three stages, each of which is a prerequisite, in the sense that the first stage is a prerequisite for continuing to the second stage, and so on. These three stages are: 1) Primary or natural subject matter, 2) Secondary or conventional subject matter, and 3) Intrinsic meaning or content. The primary data sources used in this study are literature, picture documentation, old manuscripts, and collections of classical batik material from a number of batik museums in Surakarta, Central Java. Additional sources include contemporary batik producers: PT. Batik Semar Solo-Indonesia, PT. Danar Hadi, and centers of batik trade in the cities of Surakarta and Yogyakarta, Indonesia.

3 Discussion

Originally, batik was the term given to a type of clothing worn by the ancient Javanese that was made using a special technique to display certain ornamental patterns, and in general was worn only by members of the nobility (from the palace). Its use was also accompanied by strict traditional rules relating to social strata, which dictated the right to wear certain batik patterns or motifs [6]. The word batik, in Javanese pronounced bathik, comes from a word used to describe the activity of ambatik, which is a combination of the verb émba (to make something look alike, or to visualize) and the noun taritik (dots), meaning to draw dots on a sheet of cloth [7 & 8]. Semantically, the word bathik or mbathik means mbabaring atitik (the actualization of dots), which epistemologically can be understood to mean "the embodiment of a will". The understanding of 'will' is a desire, a goal, a message that it is hoped will be conveyed, or an effect that it is hoped will be created.

When talking about "classical batik", it is not possible to ignore the two great kingdoms of the Islamic Mataram Dynasty in Java, which existed from the middle of the 18th century up to the 20th century, namely the *Keraton*or royal courts known as Kasunanan Surakarta and Kasultanan Yogyakarta. These two kingdoms were the locus of the *karaton* style batik culture,

or batik *karatonan*, or "classical batik" or refined batik [9]. The Keraton Surakarta held great pride in its *Cêplok* and *Parang*motifs, which were the height of the classical style, rich in brown colours of the earth (*sogan*), while the Keraton Yogyakarta held firmly onto the *Semen Rama* and *Parang* motifs as the foundation for developing its classical motifs [10 & 11]. It is the motifs of these two kingdoms that subsequently became known as "classical batik", based on their patterns of form, content, meaning, function, and philosophical value.

One interesting fact about the batik motifs of the Surakarta and Yogyakarta kingdoms is that they both have high regard for the *parang* motif. Historically, the *parang* motif was one of the motifs of batik *larangan*, or batik that was prohibited to be worn by the common people. During the era of King Paku Buwana III (1749-1788), a regulation (*pranata*) was issued about the clothes and accessories of the king and royal officials. This included rules about the motifs classed as batik *larangan*, which were: *Sawat*, *Parang Rusak*, *Cêmukiran*with *TêlacapModhang*, *Bangun Tulak*, *Lêngo Têlêng*, *Darêgêm*, and *Tumpal* [12]. The development of types of Javanese batik pattern or motifs in the present day has made it difficult to count their numbers and variants. In 1916, J.E. Jasper in his book *De Inlandsche Kunstnijverheid in Nederlandsch Indië* volume III entitled *De Batikkunst*, identifies 210 motifs [7].

3.1 Parang Motif

Based on its visual typology, Javanese batik can be grouped into three main categories: 1) The *Cêplok* family, with a style of expression based on a geometric plane, 2) The *Sêmèn* family, with an organic based style of expression, and 3) The *Lèrèngor Parang* family, with a style of expression based on sloping lines. Some of the *parang* based motifs are: *Parang Barong, Parang Curiga, Parang Gandasuli, Parang Baris, Parang Cénthong, Parang Godhong, Parang Jénggot, Parang Klitik, Parang Kurung, Parang Ménang, Parang Parung, Parang Pancing, Parang Pèni, Parang Kusuma, Parang Sawut, Parang Sobrah, Parang Sondèr, Parang Suli, Parang Rusak, Parang Rusak Barong, and many more variants of its development [9 &13].*

The embryo for the design of the *parang* motif was created by Panembahan Senopati or Raden Sutawijaya (1586), the first king of the Javanese Islamic Mataram Kingdom which had its center of government in Kota Gede Yogyakarta. The basic form of this motif was inspired by the natural surroundings in his place of retreat, namely the steep coral cliffs and waves of the South Sea [14]. Batik with the *parang*motif was regarded as sacred during this time because it was believed to evoke magical powers for the wearer. In the contemporary era, this kind of reason is no longer heeded, if it cannot be explained rationally. In general, visualization of the parang motif focuses more on its bright background fields, but the main object, which is the subject matter for naming the motif, is in fact the lines and cross-directional flattened conical fields. For example, 1) the *Parang Barong* motif [Figure 1], which means "lion's machete", shows large, wide background fields, 2) the *Parang Kusumo* motif [Figure 2], which means "fragrant machete" shows an arrangement of soft, curved fields, and 3) the *Parang Klitik* motif [Figure 3], which means "rows of small cubes", shows an arrangement of small, neat fields.

Broadly speaking, the visual form of the batik *parang* motif is designed from the formation of a number of ornamental shapes, including the abstraction of a large knife or machete, known as a *parang*, the ornamental form of the *melinjo* fruit (*Gnetum gnemon Linn*) inside the shape of a geometric rhombus, and continuous repeated curved lines that resemble eyebrows (*alis*), and are given the name *alis-alisan* [18]. These three ornaments are the main characteristics of the *parang* motif and are arranged in the formation of repeated rows at an

angle of 45 degrees. The repetition of line, field, form, direction, and colour of the *parang* motif gives rise to a visual work that has potential as an illusory image, in particular when this batik motif is worn as an item of clothing.



Figure 1: *Parang Barong* Motif [15]



Figure 2: Parang Kusumo Motif



Figure 3: *Parang Klithik* Motif [17]

3.2 Optical Art in the Batik Parang Motif

Optical art has connotations of being an artwork that can produce a powerful visual effect. It is usually characterized by the formation of pure geometric fields with a high degree of accuracy in the arrangement of both size and distance [19]. The representation of optical art is difficult to trace for referencing any shape, because the abstraction that appears is not an indication of shape but rather the psycho-visual effect that is construed by each individual viewer. In the scope of Modern Art, Optical Art, which is often also referred to as "Op-Art", falls into the category of an abstract work of art that aims to create a deep impression or a three dimensional illusion. Op-Art began to emerge in Europe and America in the 1960s [20]. The term was first used in 1964 to describe a special abstract style of painting, in which the patterns used could create the impression that the picture was moving [21].

Op-Art is often described as a highly scientific art, a retinal art that is closely related to visual illusion and the perception of movement [22 & 23]. In Germany, Joseph Albers (1888-1976) pioneered experimental optical art in his paintings of the 1920s. He explored pure geometric shapes with rigid patterns that were enhanced with colour to create a deep sense of illusion. In the 1960s, Op-Art artists such as Bridget Riley (England) and Victor Vaserely (France) created abstract works which were intentionally developed with the idea of exploring illusion that gave the impression of movement based on the imagination of the viewer. These two artists began by creating black and white paintings and then continuing their exploration of different colours, with consideration to perceptual and psychological theories. Their goal was to make use of the characteristics of lines and patterns to create an effect of tension and dynamism [24].

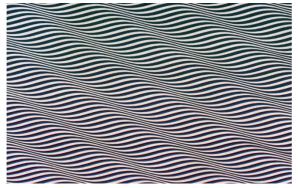




Figure 4: Cataract 3, Artist: Bridget Riley (1967) [24].

Figure 5: Batik of *Parang* Motif (18th Century) [25]

The phenomenon of an artwork is related to the arrangement of two-dimensional geometric fields that can create an illusory effect, as though seeming to appear three-dimensional [26] has long since existed in the domain of traditional Javanese art. In the beginning, classical batik art with the *parang* motif was not designed with the intention of producing an illusory effect or an effect of movement, but rather to create a nuance of charisma (*perbawa*) and a magical aura. Around the middle of the 20th century, when the power of the *keraton* was replaced by the Government of the Republic of Indonesia, a fundamental shift took place, as the rules surrounding court art were loosened, allowing it to become folk art [27], and even to move towards a more contemporary style. It was this contemporization that led to a trend that enabled batik to become a part of the world of clothing in the present era. Classical batik motifs that had been well established with their traditional patterns began to be represented in different designs, as well as becoming open to studies of contemporary aesthetics.

The ornamental formation of the *parang* motif, arranged repetitively in rows, and laid out with great precision in shape and size, creates an impression of order but at the same time is abstract. As a two dimensional visual work, it does not point to imagery in the depiction of any form or object. When the constituent motifs are observed part by part, there is a unique and peculiar presentation, with stylized abstraction that is far removed from the shape of the object that was the source of its idea. The *parang* motif has relatively little illusive tension when compared with the works of Op-Art artists such as Bridget Riley and Victor Vaserely [24], with their impressions of rhythmic movement, flickering, trembling, or direction of imagery towards a certain angle. This is understandable because the ornamental visualization is on a sheet of cotton cloth, which psycho-visually does not expect the viewer to seek an optical effect or illusive imagery.

The basic concept of batik is the technique of ornamentation on fabric for clothing material, which means that whatever the batik motif used, it is always directed towards functional considerations. A batik motif is an ornamental strategy which is designed not for the purpose of becoming a two dimensional work and going no further, but rather as a two dimensional work for three dimensional representation. When an illusory effect emerges that resembles the characteristics of Optical Art, this is not the end goal but rather an example of the initial appearance giving rise to the true representation. The batik *parang* motif is not an example of Op-Art but a work of "applied art" that has potential as optical art. The illusive effect created by the shape, field, distance, line, colour, shade, formation, and direction does

indeed use the same visual elements as in Op-Art, but the true target of illusion is when the batik motif is worn as clothing.

3.3 Applied Optical Art and Image of Formation

Most works of Op-Art are created on two dimensional media and are also enjoyed in a two dimensional format, but with a three dimensional optical impression [26]. However, this is not the case with the batik *parang* motif, which is created using a two dimensional medium and subsequently takes on a three dimensional form when worn as clothing, and develops to become an optical illusion when it merges with the body of the wearer. The illusive effect differs, not only depending on the visual presentation of the work, but also on the synergy between the batik cloth, the body, and the movement. This play of optical fantasy is no longer limited to the visual artistic appearance of the image but also the includes the synergy between the charm of the motif, the anatomy of the body of the wearer, and behavioral characteristics.

Op-Art in fashion Women's Fashions Swirling spirals, stripes and giddying checks started appearing as motifs on clothes as a way to break free from societal conventions and conservative dress codes in the 1960s [28]. The power of adaptation and development of Javanese batik is the manifestation of the loosening of traditional Javanese rules in the development of the present day [29]. In the context of applied art, the *parang* motif can be: 1) a two dimensional artistic presentation when in the form of a sheet of batik cloth, 2) a three dimensional aesthetical representation when worn in the form of clothing, and 3) a performance aesthetic when worn for certain activities or on a certain occasion. As seen in the example [Figure 3], batik clothes with the *parang* motif can be enjoyed based on the ornamentation of the motif, the beauty when worn, and the impression or nuance of harmony between the motif and the body of the wearer.

In the context of optical art, the *parang* motif implemented in the form of ladies clothing [Figure 4] has become an "aesthetical representation" that can change a person's appearance. More than just an item of clothing, it has become an object of exploration of imagery about the 'new image' of the wearer. The effect of 'illusion of character' produced has the ability to strengthen the appearance of an individual and can even make a person appear more charismatic. The arrangement of a repetitive field and ornamental lines encircling the body builds a dynamic nuance, creating a slimmer, taller and more elegant appearance. The optical nuance produced is not simply the conjuring up of an impression of movement in a two dimensional field, but more than that, it reinforces the three dimensional impression of the body circumference of the wearer that can be seen from any angle.



Figure 6: Batik Parang Motif for clothing [30].



Figure7: Illusive effect of upward circular movement, creating a slimmer and more dynamic impression.



Figure 8: Illusive effect of upward circular movement [31].



Figure 9: Illusive effect of downward circular movement [32].

A comparison between the illusory effect of the *parang* batik motifs and works of Op-Art and Modern Western Art shows that there are indeed differences in their artistic boundaries. Works of Op-Art are easier to identify visually, are two-dimensional, displayed in a static position, and need only to follow the illusory wandering of the eyes of the audience. This is quite different from batik *parang* motifs, where the illusory effect becomes more powerful

when the batik is worn as clothing, transforming from a two-dimensional piece of cloth to become three-dimensional as it enfolds the body of the wearer. It is in this three-dimensional position that the illusory effect becomes more powerful, not only as something that plays around with, or is played around with by the eyes, but by what image, or even fantasy, is imagined or envisioned in the mind of the audience when they see a person wearing batik material with a *lereng* motif.

From the point of view of terminology, the claim that traditional art is something of the past, a local work without concept, undeveloped and out of date, is not entirely accurate. It has been proven that the phenomenon of illusion in the *parang* batik motif emerged 150 years or so before the first appearance of works of Optical Art in Europe and America. This means that what is understood and expounded by paradigms of Modern Aesthetics, namely that traditional works are no more than handicrafts and cannot be included in the domain of Art, is not entirely true.

4 CLOSING

The batik parang motif cannot entirely be categorized as an Optical Art (Op-Art), but its strategy of visualization does possess the characteristics of optical art. In the limitations of a work with an illusory nuance, the parang motif does not open up the field of exploration of fantasy from retinal manipulation for the imagination of something further, but rather it is an "applied optical art" that has the ability to 'perfect' the appearance of its wearer. As a Javanese traditional art, the parang motif never claims to belong to any particular category of art, because it was created many centuries before the appearance of Op-Art. The visualization of the parang motif with its simple formation, traditional rhythms, and the accuracy of its manually arranged layout almost 'exceeds' the boundaries of the aesthetical standards of Op-Art. The area of exploration of its illusive fantasy manipulates the two dimensional presentation to strengthen the three dimensional characterization of the wearer's body. The parang motif is a work of applied optical art that has the ability to enhance the physical appearance of a person, thus creating a behavioral illusion. When a person wears batik clothes with the parang motif, there will be no more partial appearance of the wearer and the parang motif worn, but instead the two will merge to form a 'new image', with the individual taking on the charisma of the parang motif and the parang motif becoming part of the person.

References

- [1] Yudhoyono, A.B. *Batikku: Pengabdian Cinta tak Berkata*. Jakarta: Gramedia Pustaka Utama; 2010, p. 111.
- [2] Sumardjo, J. Estetika Paradoks. Bandung: Kelir, Bandung; 2014, p. 74 75.
- [3] Gadamer, H-G. *Truth and Method* (Second Edition). London–New York: Continuum Publishing Group; 1989, p. xxvii.
- [4] Harries, K. Art Matters: A Critical Commentary on Heidegger's: The Origin of the Work of Art. New Heaven: Springer Science+Business Media; 2009, p. 8.
- [5] Panofsky, E. 1982 *Meaning in the Visual Art,* Chicago: University of Chicago Press; 1982, p. 28-41.
- [6] Wulandari, A. *Batik Nusantara:Makna Filosofis, Cara Pembuatan, dan Industri Batik.* Yogyakarta: ANDI Offset; 2011, p. 2.

- [7] Jasper, J.E., Pirngadie, M. De Inlandsche Kunstnijverheid in Nederlandsch Indië. Mouton: Door de Boek & Kunstdrukkerij; 1916, p. 7.
- [8] Lu, S.F. *Indonesian Batik: Processes, Pattern, and Place*, Oxfort (Singapore): Oxfort University Press; 1984, p. 1.
- [9] Rustopo. Otobiografi Go Tik Swan Hardjonagoro. Yogyakarta: Ombak; 2008, p. 82.
- [10] Doellah, H.S. *Batik: The Impact of Time and Environment*, Surakarta: Danar Hadi; 2002, p. 56-57.
- [11] Siswomihardjo, O. *Pola Batik Klasik: Pesan Tersembunyi yang Dilupakan*, Yogyakarta: Pustaka Pelajar; 2011, p. 43.
- [12] Margana, S. Keraton Surakarta dan Yogyakarta 1769-1874. Yogyakarta: Pustaka Pelajar; 2010, p. 293.
- [13] Hamzuri. Batik Klasik, Djakarta: Djambatan; 1981, p. 37-41.
- [14] Prasetyo, A. S. Karakteristik Motif Batik Kendal Interpretasi dari Wilayah dan Letak Geografis. *Jurnal Imajinasi*. 2016; 10 (1): 51-60.
- [15] https://id.pinterest.com/pin/683984262126879774/
- [16] https://sintesakonveksi.com/info/batik/parang-kusumo/
- [17] https://shopee.co.id/BATIK-SOLO-MOTIF-PARANG-KLITHIK-i.13167471.2661270813
- [18] Septiana, U., Kurniawan, R. Perubahan Visual Ragam Hias Parang Rusak. *Dimensi*. 2016; 01 (01): 63-76.
- [19] Oster, G. Optical Art. Applied Optics. 1965; 4 (11): 1359-1369.
- [20] Onal, P.B. Op-art and Personal Practices in Contemporary Ceramic Art. *Procedia Social and Behavioral Sciences*. 2012; 51: 655–661. DOI: 10.1016/j.sbspro.2012.08.219
- [21] Hodge, A.N. *The History of Art: Painting from Giotto to the Present Day*. London: Arcturus; 2008, p. 190.
- [22] Nather, F.C., Mecca, F.F., & Bueno, J.L.O. Motion Illusions Caused by Paintings of Op Art Distort the Perception of Time. *ResearchGate*. 2012; 298-303. https://www.researchgate.net/publication/279682689
- [23] Zanker, J.M. & Walker, R. A new look at Op art: towards a simple explanation of illusory motion. *Naturwissenschaften*. 2004; 91(4): 149–156. DOI 10.1007/s00114-004-0511-2
- [24] Ibid. [21], p.191.
- [25] https://www.semarangpos.com/kenali-batik-parang-batik-larangan-keraton-surakarta-dan-yogyakarta-1044245
- [26] Seckel, A. The Art of Optical Illusions. Dubai: Carlton Book; 2000: 6.
- [27] Kurniawan, R. Batik Motif Parang dari Court Art Menuju Global Trend. *Jurnal Rupa*. 2016; 01(01): 25-39.
- [28] Elshafei, N. The Phenomena of Optical Illusions and Its Impact on Fashion Design Trend. *Journal of Basic and Applied Scientific Research*. 2015; 5 (7): 5-16.
- [29] Sulistianingsih, D., Pujiono. The Protection of Indonesian Batik Products in Economic Globalization. *Advances in Social Science, Education and Humanities Research.* 2018; 192 (1): 198-203.
- [30] https://id.carousell.com/p/batik-dress-motif-parang-139763046/
- [31] https://www.blibli.com/p/batik-km-parang-kusumo-kemeja-batik-pria/pc--MTA-3141527
- [32] https://batikunik.com/product/detail/84509/baju-batik-kemeja-panjang-motif-gurdo-parang.html