

A Study of the Design of "Fulmala" as Contemporary Jewelry Inspired by Borobudur Temple

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Abstract

This study explores the contemporary jewelry design "Fulmala," inspired by the aesthetics and symbolism of Borobudur Temple. Using an iconographic approach, the research identifies visual elements transformed into the jewelry design, such as the lotus flower crown engraved at the base of Borobudur stupas, lava stone textures, and repetitive patterns reflecting the mandala structure of the temple. Fulmala combines materials such as gold, silver, and lava stone with a composition of gold, rose gold, and black colors to create a dynamic and meaningful design. The design process of Fulmala involves stages such as idea exploration, moodboard creation, sketching, technical detailing, and prototyping, resulting in a final product with high aesthetic and philosophical value. As part of the Lavani collection by Amero Jewellery, Fulmala was showcased at New York Fashion Week 2023 and featured in international events, introducing Indonesian culture to a global audience. This study highlights how cultural heritage can be adapted into contemporary jewelry designs with international appeal.

Keywords: Fulmala; Borobudur; Contemporary Jewelry; Iconography; Cultural Design

Introduction

Borobudur Temple, one of Indonesia's "stone masterpieces" recognized as a world cultural heritage, is a shining point of Mahayana Buddhist civilization in the 9th century AD. During the reign of King Samaratungga of the Syailendra Dynasty, this magnificent temple was built as a place of worship for Buddhists. As expressed by Haldoko (2014), "Borobudur Temple is located in Borobudur Village, Borobudur District, Magelang Regency, with astronomical coordinates of 7°36'28" south latitude and 110°12'13" east longitude." The composition of the andesite that built this temple has high porosity, affecting its compressive strength, as explained by Sampurno (1969), "The high porosity of andesite that makes up Borobudur Temple produces a relatively low compressive strength compared to similar rocks." In its complexity and magic, Borobudur Temple becomes a fascinating architectural phenomenon and teaches us the rich history of Indonesia. The uniqueness and aesthetic side of Borobudur can be applied and transformed in various designs in our daily lives, one of which is jewelry design. Jewelry not only functions as an accessory to improve physical appearance, but also has a wider role in various aspects of life, such as marriage, investment, religious ceremonies, as well as an indicator of social status in society (Arsa and Laba, 2016). In addition, jewelry is often a key element in special events such as weddings, and

even becomes an integral part of everyday routines, reflecting the individual's lifestyle (Frank, 1998). Therefore, jewelry has a significant role in reflecting and revealing various aspects of an individual's life and identity.

The unique timeless charm of Borobudur Temple has inspired Amero, a leading jewelry company in Indonesia, to create a special collection that reflects the cultural wonder, named "Lavani". As expressed, LAVANI contains a deep meaning, "Lava" in Sanskrit as a tribute to the lava stone that beautifies Borobudur Temple. This project is an effort to immerse Indonesia's stunning natural beauty, and Borobudur Temple, as an important symbol, became the main inspiration for Amero designers. In the words of Amero (2023), "As if the voices of the past float through the air, vibrating through their lava rock-based heritage, the essence of which is poured out through the beautiful sketches of jewelry." This work is not just a piece of jewelry, but a series of works of art that exude the richness of Indonesia's culture and capture the eternal charm of Borobudur Temple.

The Lavani collection is an eye-catching contemporary piece of jewellery with a unique design, reflecting the sheen of gold, the beauty of rose gold, and the natural feel of lava rock. Lavani takes risks by combining different design elements from the conventional jewelry trends that exist in society. The result is a collection that has stolen the hearts of jewelry lovers, although it is not yet very popular with contemporary jewelry collectors. Jewelry has always been an important part of a person's identity and lifestyle, which reveals the character of the individual who wears it. In today's fashion world, contemporary jewelry has always been the center of attention and remains relevant throughout time, due to its unbound nature of the times. However, the development of contemporary jewelry in Indonesia is still limited, as revealed by Wallace Chan (2014) at the Biennale des Antiquaries in Jakarta, that Indonesia is still in the early stages of introducing contemporary jewelry collections. However, contemporary jewelry has flexibility in its design, allowing it to be incorporated with a variety of patterns and pieces that can form a new direction in the world of jewelry. Lavani, with its innovative and free design character, represents a new spirit in contemporary jewellery.

In its efforts to preserve Borobudur as an inspiration for jewelry design, Amero held a jewelry design competition to be realized in its collection. The competition is *the Lavani Design Competition* 2023 which is a national-level jewelry design competition. In the competition, "Fulmala" was selected as the champion. The fulmala design is part of Lavani's collection which was exhibited at the *New York Fashion Week Spring Summer 2023* fashion show.Research on jewelry in the context of fashion not only discusses physical form, but also explores the role and significance of jewelry in social interaction. Jewelry, as a representation of a particular phenomenon, can become popular and recognized as a trend in society. This is in line with the views of Charlotte Mankey and Phyllis Tortora (2003). The uniqueness of Fulmala's design will be studied as a contemporary jewelry design that not only has a unique shape as a material object but also the meaning of Borobudur Temple as a source of inspiration in the form of jewelry design.

Theoretical Studies

1. Iconography Studies

To answer the problems raised in this study, the method used is the study of iconography. Iconography refers to the identification, description, and interpretation of icons based on the attributes that characterize them. This research is a type of qualitative research, where the findings are obtained through an analysis process that does not involve mathematical methods (Strauss, 2003: 4-5). In the context of this study, the reasoning approach used is inductive, which means that the conclusion is drawn based on the analysis of specific facts or symptoms to compile an empirical generalization (Tanudirjo, 1988: 34). Therefore, this study is descriptive, with the main objective of providing an overview of

certain facts or symptoms found during the study. Thus, this study emphasizes on data analysis related to the context of space, time, and form (Tanudirjo, 1988: 34).

This research will describe retrospectively to examine Borobudur Temple as an inspiration in realizing the Lavani jewelry collection inspired by it. Using this method, the research will identify how Borobudur Temple has become a source of inspiration for contemporary jewelry design, particularly Fulmala. The results of this study will provide an understanding of the relationship between cultural heritage, jewelry design, and fashion trends in Indonesia.

2. Lavani Collection as a Reference for Design Characteristics

Lavani, a collection series from Amero *Jewellery*, amazes with the beauty inspired by Borobudur Temple. With a strong character and a unique contemporary design, Lavani is dominated by a dynamic shape that is hollow and seems thick, emitting shades of gold, *rose gold*, and black that resemble the color of lava stone. The composition of the shape tends to be geometric but has an alluring asymmetrical touch. The Lavani series is not just a piece of jewelry, but also a work of art that respects the structures and lava rocks that beautify Borobudur Temple. Lavani has the meaning of grace, where "Lava" in Sanskrit honors the beauty of the lava stones that beautify Borobudur Temple, presenting works that reflect the eternal charm of the temple (Amero, 2023). The visual appearance of this Lavani product is what inspired Fulmala's design in terms of coloring and meaning.

Lavani products have succeeded in bringing Indonesia culture into jewelry that is worn in daily life. In translating Indonesia's rich culture into elegant jewelry but still with cultural value, Lavani has an amazing vision. Inspiring from different regions, Lavani creates jewelry that brings deep meaning to every Indonesia woman. As expressed by Amero (2023), "Having a vision to bring and absorb Indonesia's original culture from various regions, and translate it into jewelry that carries cultural value while being elegant and relevant." This is what makes Lavani jewelry more than just accessories; It has become an expression of beauty and cultural pride in daily life.

Amero Jewellery's extraordinary achievements, especially through the Lavani jewelry collection that exudes Indonesia's cultural pride with inspiration from Borobudur Temple, have brought this Indonesia jewelry brand to the international level. Collaborations with talented local designers and participation in various fashion shows in the country, as well as being the official sponsor of the Puteri Indonesia event have marked the successful journey of Amero Jewellery. However, the most striking achievement was their ability to break onto the stage of New York Fashion Week and even perform in Time Square, New York City, an achievement that underscores Amero Jewellery's position as a leader in Indonesia's globally recognized jewelry industry.



Figure 1. Some Lavani Series Designs (Source: www. amerojewellery.com, 2023)

Discussion

1. Fulmala Design

Fulmala is a jewelry concept that takes inspiration from the beauty and aesthetics of Borobudur Temple. Fulmala, with the meaning of flower crown in Sanskrit, presents a design that highlights the basic shape similar to the lotus flower crown as engraved on the base of the Borobudur stupa. The design is enriched with lava rock nuances that give it a golden touch like a mesmerizing lava flow.

Fulmala's design design not only combines various considerations related to shape, color, texture, proportion, and composition, but also creates an image that communicates various important information. As revealed by Waskito (2014), the image formed in the design can describe elements of information about the function of use, process, and even how the product is made. Semiotics, as proposed by Horst Oehlke (1990), plays a central role in the product design process, connecting structural elements, functional effects, and the appearance of objects with non-verbal communication, human-product interaction, and aesthetic perception. This is the basis of Fulmala's design, which takes into account not only form and aesthetics, but also function and the target audience of the user. As a result, Fulmala combines beauty and meaning in a piece of jewelry that reflects Indonesia's culture and Borobudur Temple.

a. Design hypothesis SWOT (Strength, Weakness, Opportunity, Threat) of Fulmala:

• Strength

Contemporary jewelry design attracts the interest of various groups, ranging from *mid-end* customers to high-end customers, strengthening its appeal (Hasanuddin, et al: 2021).

• Weakness

As attractive as it may seem, contemporary jewelry often has relatively high prices on the market, limiting accessibility. In addition, knowledge about the value of contemporary jewelry art is still lacking in Indonesia.

• Opportunity

Contemporary jewelry with an ethnic basis opens up opportunities to introduce the contemporary nature and uniqueness of Borobudur Temple into jewelry design, bringing deep cultural elements (Hasanuddin, et al: 2021).

• Threat

The threat arises if the design of jewelry does not take into account the comfort of everyday use, limiting its functionality only to special moments.

b. TOR (Term of Reference)

It is a guide that explains the factors and constraints that will guide the design process. In order to achieve the design objectives, TOR includes the following:

• Product Description

Fulmala is a jewelry necklace that combines elements of contemporary jewelry design with inspiration from the stylization of Borobudur Temple.

• Design Considerations

Fulmala necklaces are designed with more organized and dynamic curves, creating an eyecatching contemporary piece of jewelry.

• Design Limitations

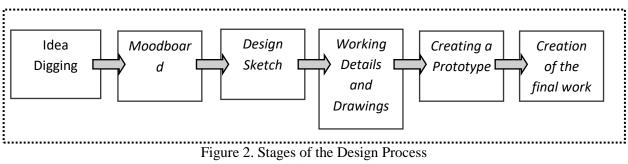
This design is focused on simplifying the shape, taking inspiration from several sides and the uniqueness of Borobudur Temple. The Fulmala necklace has a color that depicts lava stones that tend to be black, mixed with touches of gold and rose gold, and has a prominent texture similar to stone. The materials used for this design include gold, silver, and other precious metals.

• Targeted User Description

This jewelry is aimed at women aged 20-45 years, especially *mid-end* and *high-end* customers.

c. Design Process Flow

Based on the experience that has been carried out, the design process begins by studying and exploring the aesthetic side of Borobudur Temple, then choosing the main idea. After the main idea was obtained, it was continued to make *a moodboard* as a reference inspiration for making sketch designs. The next process is to make a sketch, continue to make details of the appearance and working drawings accompanied by size, if the design process is completed, continue by making a prototype and handing it over to the jewelry maker to become the final product/work. If depicted in a chart, the stages are as follows:



(Source: personal documentation 2023)

The stages of the design process can be described in the following table;

'	l'able 1.	. Stages	of the	Design	Proces	SS	
						The	h

Idea Digging	The basic idea is Borobudur Temple
Moodboard	<i>Moodboards</i> are used as a reference for a collection of inspiration in making designs.

Design Sketch		Sketsa dibuat menggunakan pensil dan pensil warna secara manual
Detailed drawings and working drawings	Park Branch Park	In the creation of detailed drawings and working drawings, detailed descriptions of textures, as well as clear sizes, are given as a reference in the work.
	A A A A A A A A A A A A A A A A A A A	
Prototype		<i>Prototypes</i> are made with actual sizes and textures to make them easier for craftsmen to understand. This <i>prototype</i> was made using thick paper
Final jewelry work		This jewelry is made by Amero Jewellery.

(Source: personal documentation and Amero 2023)

2. Kajian Ikonografi Desain Fulmala



Figure 3. Fulmala Iconography Study (Source: personal documentation 2023)

As the name implies, "Fulmala" means a crown of flowers. The flower crown in question is a lotus flower crown as engraved at the bottom of the stupa of Borobudur temple. According to Latif (2014), "based on existing visual findings, lotus flowers have the highest quantity compared to other types of flora." Meanwhile, Kandahjaya (1995) explained that "the basic shape of the lotus flower has similarities with the harmonization of the circular shape of Borobudur which depicts a sturdy plurality." The lotus flower crown is then realized into an asymmetrical shape and given waves to make it seem dynamic and textured. The flower crown is manifested like fragments of different sizes from the largest at the front and continues to shrink backwards, all of which form a circle like a lotus flower.

In each shape of the flower crown is reinforced with the texture of jewelry such as lava rocks, manifested in the shape of small dots such as the surface of the stone. Added with motifs that emboss the shape of a stupa. This detail is in the form of a depiction of *the outline* of the stupa that is stacked and consists of various sizes to create a dynamic and dimensional impression. The depiction *of the outline* of the stupa that resembles this relief is realized with a golden color to make it more embossed than the color of lava rocks as a background, which is also a symbol of the incandescent lava melt from Mount Merapi with its bright color as a metaphor when Merapi is erupting.

In the depiction of the base of each flower crown sheet, there are linked shapes that if connected will form a cavity as seen in the stupa of Borobudur temple. The cavity is formed from stone joints in the temple construction process which seems to be a combination of the letter X combined into a diamond-shaped cavity. This is a characteristic of temple buildings that are arranged by associating stone shapes. "The construction technique of temple buildings in Indonesia has its own characteristics. Unlike the Pyramids in Ancient Egypt which used large stone blocks, as well as the Hindu temples of India which were carved out of monolithic rock mountains, temples in Indonesia made use of andesite stone fragments or smaller stones." (Sopandi, 2013) In addition, Roesmanto (1985) observed that "a similar hole in the stupa of Borobudur Temple emphasizes the symbolism of the Arupadatu terrace." In his observations, he also noted two types of Borobudur stupas made of andesite stone: first, a square-shaped stupa that resembles a limas bowed to an inward position with rounded corners, and second, a stupa in the shape of an X or a cross-shaped stupa arranged in a cross.

In the center of the necklace there is a circular shape with details of dots arranged neatly in a circle. This shape describes the appearance of the entire temple as well as the shape of the Lotus flower seen from above with a centralized composition. If viewed from the photo using *a drone*, the appearance

of Borobudur temple will look like small neat and circular dots with different stupas of different sizes. In creating a larger series of ornamental patterns, combining the basic pattern with the support is a technique that cannot be separated from the nuances of the structure of the Borobudur temple building which has a single center. As expressed by Latif (2014), "This can be likened to a phenomenon that often occurs in the arrangement of the solar system, where the sun is the center, or in the structure of the atomic nucleus consisting of protons, electrons, and neutrons". In addition, interesting inspiration for the development of ornamental variants can also be taken from the strata system that composes a multi-storey pattern in the Borobudur temple building. Sujarweni (2012) mentioned that the concept of Borobudur madala cosmology describes Kamadhatu or the world of desire, Rupadhatu or the world of form, and Arupadhatu which is a formless world towards nirvana.

Overall, the shape of the Fulmala necklace depicting the Lotus flower is decorated with golden prada both in each shape of the flower crown and the details of the pendulum. This is a manifestation of the Melt shape of Merapi incandescent lava and the rhythmic accent in the design with the repetition of shapes and patterns in accordance with the principle of Rhythm in the design. Rhythm in art has a close relationship with the regular repetition of the elements used in a work. This repetition can be seen in various aspects, such as lines, shapes, colors, textures, and dark-light contrasts that are arranged repeatedly. There are several types of rhythms in art, for example alternative rhythms that involve the repetition of elements in turn, as well as progressive rhythms that present changes in size, both from large to small and vice versa. In addition, the rhythm of flowing movements can also be realized in art, either with a continuous pattern from small to large, or vice versa (Suparta, 2010).

3. Embodiment of Fulmala Design and Exhibition

The Fulmala necklace, as part of the Lavani collection by Amero *Jewellery*, was designed using 17-carat gold and some parts are coated with rodhium to give it a black impression. This work is realized by several additions to the bottom layer of the frame to make it look more voluminous and flat, as well as the reduction from the initial design on the pendulum decoration on the back and the shape of the hook used. This is due to technical reasons of craftsmanship and material processing that is adapted to other Lavani collections. This finished jewelry product visually looks thicker and has high detail, especially in the creation of a texture resembling lava stone with a porous and hollow impression and the application of the shape of the stupa silhouette that appears in contrast to the *rose gold color*.



Figure 4. Fulmala's final product and details (Source: Amero 2023 documentation)

This work was first introduced to the public through an exhibition at the *New York Fashion Week* (*NYFW*) Spring Summer 2023 event, especially in the Fashion Show entitled "Indonesia Now" on September 14, 2023, where Amero collaborated with leading Indonesia designers. In the fashion show, Fulmala was exhibited by a model wearing a low-cut dress from the Liliana Tanoe Soedibyo fashion house Livette. Steven, as Amero's creative director, said, "Amero as the first jewelry brand to appear on the *NYFW* stage brings the mission of introducing Indonesia culture, especially Borobudur Temple, to the eyes of the world through a different form, namely jewelry that is full of philosophical values. Therefore,

Fulmala as a jewelry that is full of meaning and inspired by Borobudur Temple is an important part of the exhibition." In addition to *NYFW*, Fulmala is also a sponsor jewelry worn by Puteri Indonesia 2023, Farhana Nariswari, during a visit to the Embassy of the Republic of Indonesia (KBRI) in Washington.DC. This exhibition and visit shows that Fulmala as a design that is able to appear in international events carries the mission of introducing Indonesia culture to the world stage.



Figure 5. Fulmala in the NYFW event and worn by Puteri Indonesia 2023 (Source: Amero 2023)

Conclusion

Fulmala is a jewelry concept that combines the beauty and aesthetics of Borobudur Temple, creating a unique design that reflects Indonesia culture. This design highlights the basic shape inspired by the lotus flower engraved at the base of the Borobudur stupa, with the addition of lava stone shades that give it a touch of gold. In the design process, Fulmala pays attention to aspects of shape, color, texture, proportion, and composition, and tries to communicate various important information through the images formed. Thus, Fulmala becomes a piece of jewelry that is not only visually beautiful, but also contains a deep meaning of Indonesia culture, while incorporating interesting contemporary elements.

The design process of Fulmala starts from the aesthetic study of Borobudur Temple, the selection of the main idea, the making of mood boards, sketches, appearance details, working drawings with size, to the making of prototypes before becoming the final product. In the design process of Fulmala, the inspiration from Borobudur Temple is reflected in the basic shape of the Lotus flower crown with lava stone nuances, the use of textures and motifs that depict the structure of the temple, as well as the repetition of elements in the design to create a rhythmic principle.

The Fulmala necklace, part of the Lavani collection by Amero Jewellery, was presented at the New York Fashion Week Spring Summer 2023 event with the aim of introducing Indonesia culture, especially Borobudur Temple, to the world stage through meaningful and inspired jewelry from the temple.

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