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Mencuk Gesture to Sexy Alluring Fashion: Semiotics of Ronggeng Karawang

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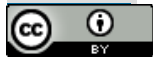
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ABSTRACT

This research explores the transformation of the mencuk movement a simple, spontaneous, attractive, masculine yet sensual and dynamic gesture from the Ronggeng Karawang dance (West Java, Indonesia), into contemporary fashion design with a sexy alluring style. Using a descriptive qualitative approach and Research & Development (R&D) method, data were collected through observation, in-depth interviews with cultural practitioners (including Mr. Haji Wahab, a cultural figure from Tempura Village, Karawang), and visual documentation. Roland Barthes' semiotic theory (denotation, connotation, myth) was employed to decode movement meanings, while Lamb & Kallal's FEA (Functional, Expressive, Aesthetic) framework guided the design process. AI-based virtual try-on (VTON) technologies including VITON-HD, LaDI-VTON, and TryOnDiffusion were utilized for rapid visual iteration. Findings reveal three core philosophical meanings embedded in the mencuk gesture: Power (energy, spatial mastery, courage), Beauty (fluidity, sensuality, elegance), and Fertility (creativity, natural dynamism, Sundanese women's life force). These meanings were translated into design elements: diagonal-asymmetric silhouettes (H-line, fit body, fit & flare), rhythmic draping, rice-flower motifs, macrame textures, and material combinations (jacquard, lace, organza, taffeta). The research concludes that traditional dance gestures can be systematically transposed into fashion narratives through semiotic analysis, producing culturally sensitive yet globally appealing contemporary designs. This study contributes to the growing discourse on local wisdom-based fashion innovation and offers a replicable model for translating intangible cultural heritage into tangible design artifacts

INTRODUCTION

Fashion not only reflects social status but also adds an aesthetic and narrative dimension to the performing arts. Malcolm Bernard (1995:86) defines fashion as a cultural phenomenon that serves as a method used by groups or individuals to construct and communicate their identities. As the global creative industry evolves, it is crucial for designers to explore the potential of local culture as a source of authentic inspiration (Throsby, 2010; Skov, 2005; Craik, 2009). The Karawang ronggeng dance, which is synonymous with expressions of social interaction, sensuality, and local femininity, holds significant potential to be translated into contemporary fashion design. The “sexy alluring” style approach in fashion offers space to express boldness, the body, and the reinterpretation of traditional values within a modern context (Choi & Powell, 2005; Rocamora, 2017; Bruzzi & Gibson, 2013; Geczy & Karaminas, 2013).

In a cultural context, the Ronggeng dance is not merely an artistic expression but also a medium for social and spiritual communication. Costumes in dance performances are not merely body coverings but symbols of status, identity, and visual narratives that reinforce the character of the performance (Suraya & Zainol, 2019; Barnard, 1995). This reinforces the notion that the relationship between dance and fashion forms an ecosystem that reflects social, cultural, economic, and aesthetic forces (Entwistle, 2000; Kawamura, 2005; Calefato, 2004; Evans, 2013).

Although there have been numerous studies on cultural transformation in fashion (Barthes, 1983; Howell, 2012; Hall & Du Gay, 1996), very few have specifically examined the mencuk ronggeng dance as a primary source of inspiration for fashion design, particularly within the context of a contemporary “sexy and alluring” aesthetic. Previous studies have focused more on the preservation of dance or the development of traditional dance costumes (Sedyawati, 2006; Indrayuda, 2015; Widagdo, 1996), without treating dance movements as visual elements that can be reinterpreted through a fashion semiotics approach (O’Connor, 2020; Rocamora, 2016; Davis, 1992).

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Furthermore, the semiotic approach in fashion design has not been fully utilized to interpret the visual symbols of traditional dance movements. In fact, Roland Barthes’s approach to denotative, connotative, and mythical meanings can serve as a strategic analytical method for transforming dance elements into fashion narratives (Barthes, 1983; Mick et al., 2004; Peirce, 1991; Williamson, 2002).

The urgency of this research lies in the need to create a fashion development model rooted in local wisdom while remaining responsive to global dynamics (Lyu et al., 2020; Zhang et al., 2019; Fernandes, 2018). The integration of cultural heritage and contemporary design not only strengthens national identity but also opens up market opportunities for Indonesian creative products on the international stage (Steele, 2010; Kawamura, 2022; Mears, 2020). This study can also

serve as a reference for the development of fashion curricula at design universities in Indonesia (Green, 2019; Loschek, 2009; Atkinson, 2012).

This study aims to explore the distinctive elements of the Karawang ronggeng dance movements and transform them into sexy, alluring fashion designs using a qualitative-descriptive method and Research and Development (R&D). Roland Barthes' semiotic approach is used to analyze the meaning of dance movements as visual symbols, while the FEA design thinking framework (Lamb & Kallal, 1992) is employed in the design process. Through this approach, the study is expected to provide theoretical and practical contributions to the

development of culture-based fashion design as a medium for artistic expression and creative innovation.

METHODS

This study employs a qualitative descriptive approach and the Research and Development (R&D) method. This approach enables the researcher to uncover cultural meanings in depth while simultaneously developing fashion designs as applied products (Creswell, 2014; Borg & Gall, 2003).

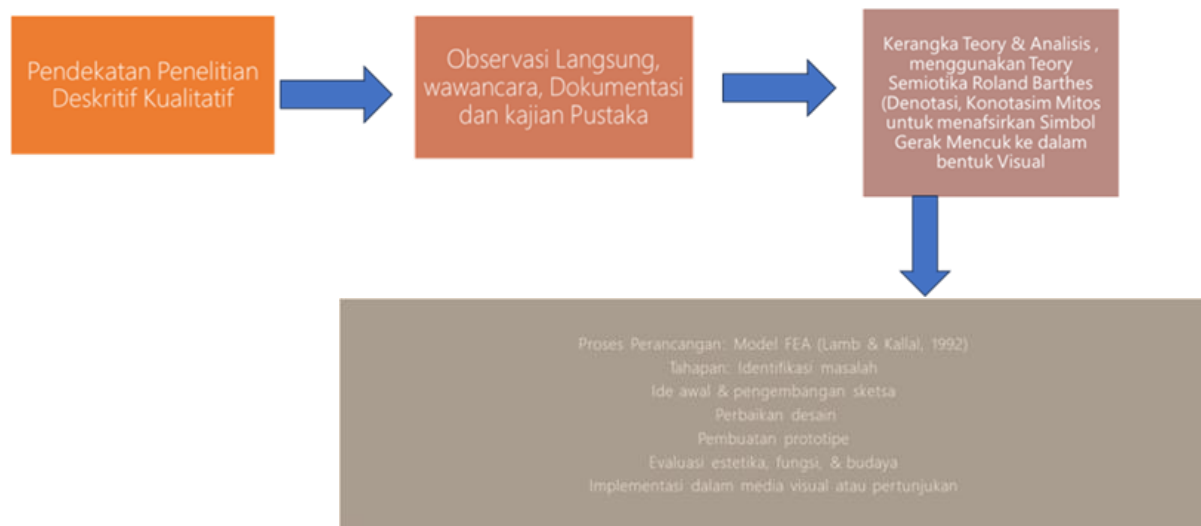


Figure 1. Creation Research Methods

Source: Pramudyanini 2025

This study is an applied research project with exploratory and creative characteristics. A descriptive qualitative approach was used to understand the movement characteristics and symbolism of the Ronggeng dance within a cultural context (Miles et al., 2014). R&D methods were used to develop fashion design products based on local culture. R&D is suitable for design studies because it involves an iterative process from exploration to realization (Green, 2019).

Data were collected through direct observation of Ronggeng dance performances and visual documentation. This technique is useful for recording expressions and movements in detail

(Spradley, 1980). In-depth interviews were conducted with dancers, fashion designers, and cultural observers as primary informants. These interviews aimed to explore cultural experiences and aesthetic interpretations (Kvale, 1996). Documentary research was conducted on archives, photographs, books, and illustrations related to dance and costume. This documentation enriches the understanding of visual and historical aspects (Bowen, 2009). A literature review was used to strengthen the theoretical foundation. The literature used was drawn from journals, academic books, and relevant articles (Rocamora, 2016; Kawamura, 2005).

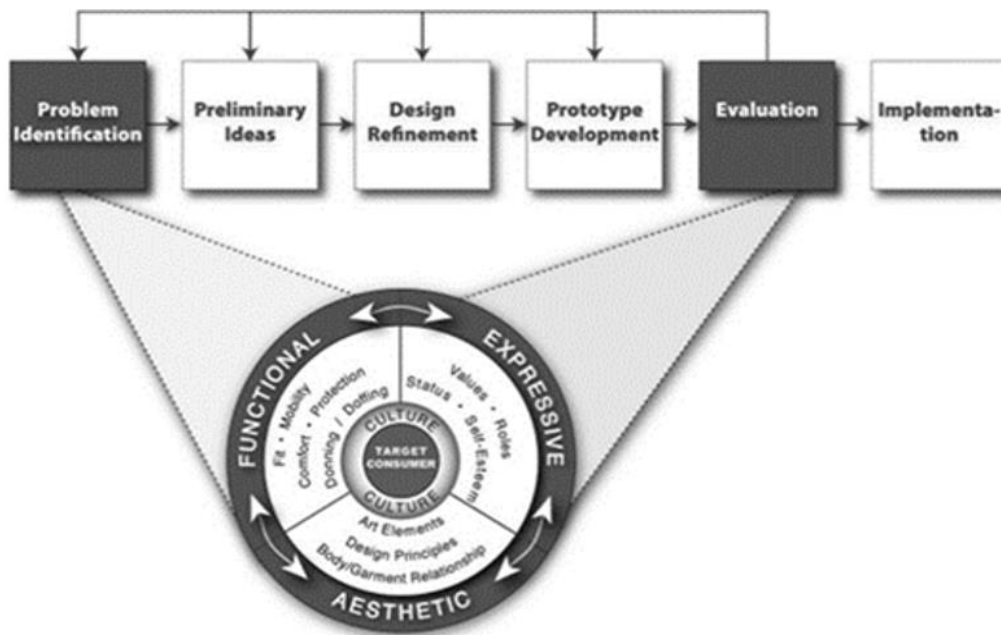


Figure 2. Conceptual Framework of Apparel Design, FEA
Source (Lamb & Kallal, 1992)

The analysis was conducted using Roland Barthes’s theory of semiotics. This theory consists of three layers of meaning: denotative, connotative, and mythical (Barthes, 1983). Denotative meaning describes the direct relationship between a sign and its object. Connotative meaning involves the emotions and cultural values attached to a sign (Mick et al., 2004). Meanwhile, myth is a cultural narrative that shapes ideology within society. This theory is

used to interpret dance movements into visual fashion symbols (Williamson, 2002; Peirce, 1991).

The FEA Design Thinking Model

The design process follows the FEA (Functional, Expressive, Aesthetic) model by Lamb & Kallal (1992). This model is used to ensure that the design fulfills practical functions, expressive meaning, and aesthetic value.

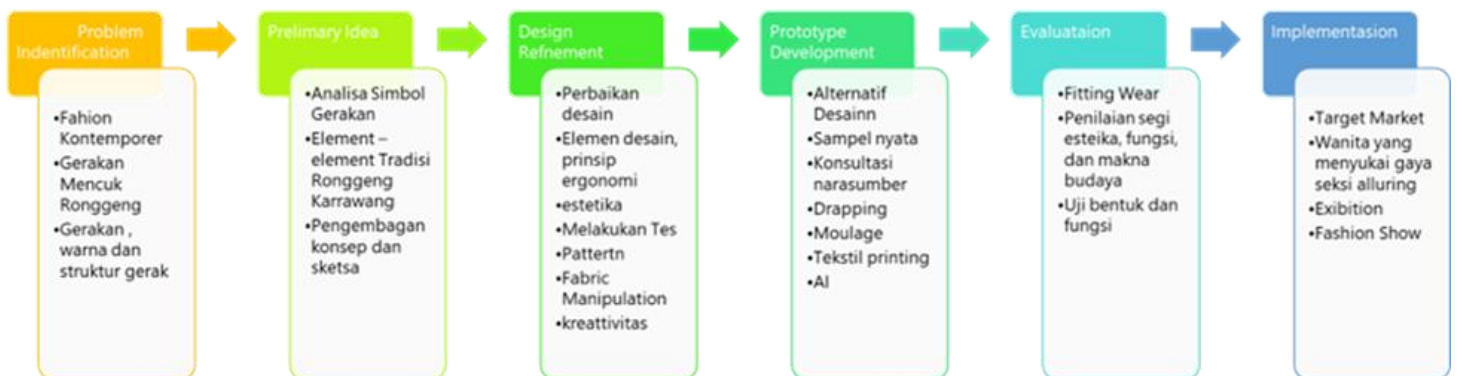


Figure 3. Conceptual Framework of Contemporary Design,
Source: Pramudyarini 2025

The first stage is problem identification, which involves recognizing design needs based on the characteristics of the Ronggeng dance. This stage involves a study of movements, colors, and movement structures (Lamb & Kallal, 1992). The second stage is the initial concept, which involves developing sketches and visual concepts. These concepts are based on the results of a symbolic analysis of the movements and costumes (Atkinson, 2012). The third stage is design refinement, which involves perfecting design elements using principles of ergonomics and aesthetics. Refinements are made based on the results of initial trials and consultations with experts.

The fourth stage is prototype development, which involves creating a physical sample based on the final design. This prototype is used to test form and function (Loschek, 2009). The fifth stage is evaluation, which involves assessing the design in terms of aesthetics, function, and cultural significance. Evaluation includes discussions with fashion and cultural experts (Green, 2019). The final stage is implementation, which involves presenting the results through visual media or simulated performances. This constitutes the final form of the

fashion design creation process (Geczy & Karaminas, 2013).

RESULTS AND DISCUSSION

The word “fashion” derives from the Latin term “factio,” meaning to make or to do. Therefore, the original meaning of the word “fashion” refers to an activity; fashion is something a person does, unlike today, where fashion is understood as something a person wears. According to Polhemus and Procter (as cited in Barnard, 2006), in contemporary Western society, the term “fashion” is often used as a synonym for “appearance,” “style,” and “clothing.”

Contemporary Fashion is a sociological lifestyle (in a limited sense), referring to the distinctive lifestyle of a specific group (Featherstone, 2001). Meanwhile, in modern society, lifestyle helps define a person’s attitudes, values, wealth, and social status (Chaney, 2004). Contemporary fashion is a style of clothing that reflects current trends but remains open to influences from culture, art, and technology. Thus, this fashion is not bound by any specific conventions but is flexible, dynamic, and full of exploration.



Figure 4. Map of Rengasdengklok, "Sanggar Daya Asmara"

Source: Pramudyarini

In Sundanese dance literature, *pencugan* (often pronounced *mencug*) is positioned as the core phase in the middle of the *Jaipongan* structure, namely the distillation of *ibing penca* moves for the

different dance needs of *bukaan* (beginning), *nibakeun* (closing), and *mincid* (connection) (Ramlan, 2013).



Figure 5. Conceptual Framework of Karawang Ronggeng
Source: Pramudyarini 2025

In the idiomatically related *Bajidoran* variant, this section serves as the backbone of the performance, as it establishes the movement patterns, drum accents, and audience dynamics (Rahmaputri, Budiman, & Taryana, 2024). In *Karawang* (*Kaleran* style), the practice of *ibing pencug* exists in two modes: *ibing pola* (patterned) and *ibing saka* (improvised), which are performed in *Bajidoran* venues such as the *Namin Group*. Field research maps four distinct stages (opening, *nyindekeun*, *nibakeun*, *mincid*) along with core techniques that define the local energy, space, and tempo (Rahmaputri et al., 2024; Suryaman, 2019).

Mencuk Karawang Movements In an interview with Mr. Haji Wahab, a cultural figure from *Tempura Village*, *Karawang Regency*, the *mencuk* movements are part of the *ronggeng* tradition, traditionally performed by men known as *awara* in their time. It has evolved to the present day and is now more

popular than *ronggeng* dancers. The movements resemble *pencak silat*; while traditionally performed in pairs with *ronggeng*—a practice known as *ngibingan*—they are now more commonly performed by individual men or women, with the movements largely adapted from local wisdom. *Pencugan/mencug* is also discussed in the study on the *Karawang Pendul Mask*, which details the patterns of the *ibing penca* techniques, such as *kuda-kuda*, *pasang sogok*, *giwar*, *peupeuh*, *guntingan*, *luncat malik*, as well as the dramatic moment of falling during the *goong* strike. This sequence of moves underscores the technical lineage that was later sublimated into the realm of *Bajidoran/Jaipongan* (Rosala, Supriyatna, & Suryawan, 2018).

The picture below shows some of the *mencuk* movements danced by *Ronggeng*.



Figure 6. Photo of the Mencuk Movement, Karawang Ronggeng
 Source: Pramudyarini 2025

Researchers sought to illustrate the “mencug” movement using AI methods to generate fashion visuals (VTON and generative), scaling up from classic VTON to high-resolution. To test the application of fashion forms derived from the abstraction of the ‘mencug’ movement, this study employed image-based virtual try-on (VTON). Fashion images and model images were synthesized

into a “wearing” display that aligns with body geometry. The initial foundation was VITON and CP-VTON (geometric matching), which was later upgraded to VITON-HD with robust normalization against misalignment. This approach is relevant for checking visual fit, drape, and fabric drape before physical prototyping (Han, Wu, Wu, Yu, & Davis, 2018; Wang et al., 2018; Choi, Park, Lee, & Choo, 2021; Fele et al., 2022).



Figure 7. Sketch of Mencuk Movement, Using AI, 2025

Diffusion-based models such as Try On Diffusion and LaDI-VTON improve texture preservation and stability under pose changes and occlusion. Evaluation using the *Dress Code* dataset (multi-category, high-resolution) facilitates A/B testing of silhouettes, pleat patterns, and proportions, enabling rapid yet quantifiable motion-based visual experiments (Zhu et al., 2023; Morelli et al., 2023; Morelli et al., 2022).

The pipeline above enables the generation of variations in patterns, colors, and silhouettes through

image conditioning or prompts, which are then tested via try-on on model images that adhere to ethical representation standards. This method does not replace actual material and comfort testing, but it accelerates culturally sensitive design iterations (Choi et al., 2021; Morelli et al., 2023; Morelli et al., 2022).

Findings Using Roland Barthes’s Semiotic Approach

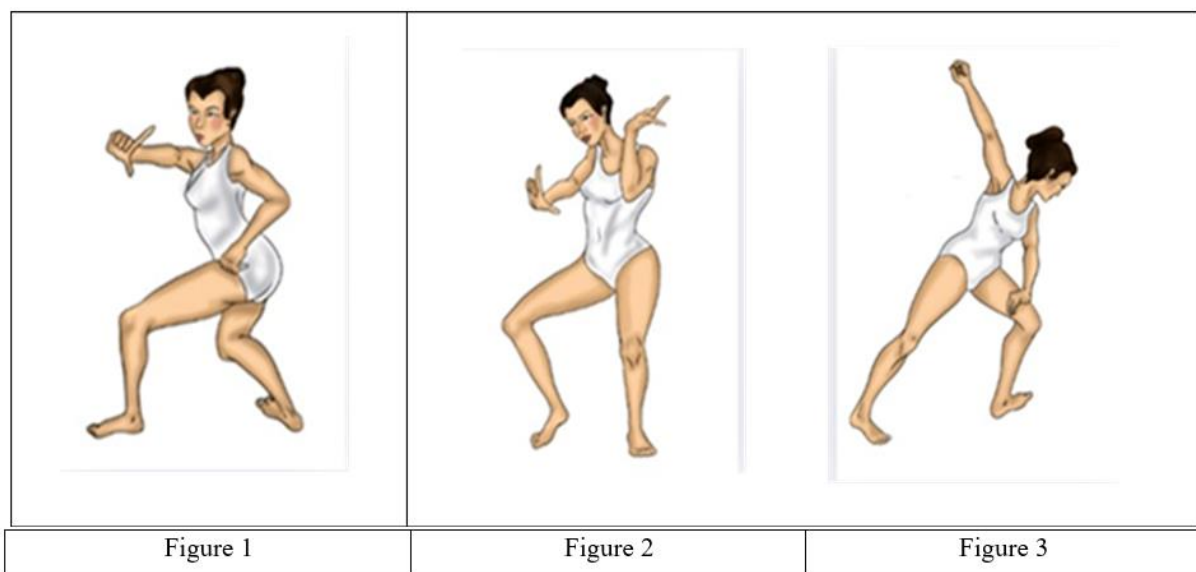


Figure 8. Conceptual Framework of Karawang Ronggeng
Pramudyarini, 2025

Table 1. Conceptual Framework of Karawang Ronggeng

No GBR	Analisis	Unsur Analisa	Description	Denotative Meaning	Connotative Meaning	Emerging Myths/Ideologies
1.	Penanda (Signifer)	The Mencuk movement in Karawang's ronggeng dance	Powerful movement in a silat stance leaning to the right, hands firm, focused expression, fast broken rhythm	The female dancer's movements bravely & spontaneously	Symbol of strength, fertility, joy, ronggeng	Women as the allure of local culture and aesthetic energy

2.			<p>Body leaned forward, right hand stretched forward. Left arm bent inward, chest pushed out, hips tilted to the left. Left foot to the right on tiptoe and bent</p>	<p>A movement or position that is dynamic, balanced</p>	<p>Women appear as strong, flexible, and spatially aware entities</p>	<p>Symbol of strength, energy of Sundanese women</p>
3.			<p>Body leaning downward, right hand up, to the left down touching the thigh, left leg bent forward, right straight backward, chest puffed out, head bowed. A strong and masculine movement</p>	<p>Dem onstrating strength, balance, and body control</p>	<p>Courag e and self-pride, as well as humility</p>	<p>The strength of Sundanese women that balances power and manners</p>

The result of semiotics on the Symbolic Movement in fashion



Figure 9. Result of Semiotics on the Symbolic Movement in Fashion

Table 2. Symbolic Movement in Fashion

The dance movements of mencuk ronggeng have the philosophy of a strong, flexible, and lively female body. Its movements contain elements:			
NO	THE CHARACTERISTICS OF THE RONGGENG DANCE MOVEMENT	PHILOSOPHICAL MEANING	DESIGN ELEMENTS
		SUCKING MOVEMENT	
1.	POWER: Strength, body energy, and mastery of space	symbolizes the energy and courage of the ronggeng woman, who is active, assertive, and full of vigor; this movement stomps the body and the bravery to face the audience.	<ol style="list-style-type: none"> 1. Silhouette: H-Line reflects firmness and self-control. 2. Color: Red shade symbolizes energy, blood, life spirit. 3. Pattern: Lines depict the direction of movement and body rhythm. 4. Texture & Details: Macramé, rough textures present a strong, structured impression. 5. Fabric: Jacquard, Taffeta fabrics have a firm and stiff character, symbolizing strength.
2.	BEAUTY: Gracefulness, smooth transitions, and sensuality of movement	depicts the suppleness and sensuality of the female ronggeng's body movements as she dances with balance, beauty, and allure. The piercing movements provide a flexible rhythm between bowing and looking up, conveying a sense of charm and self-control	<ol style="list-style-type: none"> 1. Silhouette: Fit body highlights the natural body shape, indicating elegance. 2. Color: Red, black, sensuality, mystery, and elegance. 3. Motif: Rose flora symbolizes beauty and passion. 4. Texture: Transparent opens up the view, yet remains veiled. 5. Fabric: Lace, Organza, Voal, fabric character is light, feminine, soft.
3.	Fertility: a symbol of life and women's creativity	(fertility and dynamics), representing Sundanese women full of life, spontaneous and natural. The movement of cucuk also carries the meaning of fertility and hip flexibility, balancing the movement of the lower and upper body. Fashion is translated into design elements	<ol style="list-style-type: none"> 1.Silhouette: Fit & Flare accentuates the waist and flares out below, like a full and dynamic body shape. 2.Color: Natural & neutral symbolize simplicity and harmony with nature. 3.Pattern: Abstract representation of body movement and natural energy. 4.Detail: Drapery, layers visualize the layers of life and processes. 5.Fabric: Satin, Tulle gives a soft, shiny, and layered effect.

Discussion





Diffusion-based models such as TryOnDiffusion and LaDI-VTON improve texture preservation and stability under pose changes and occlusion. Evaluation using the *Dress Code* dataset (multi-category, high-resolution) facilitates A/B testing of silhouettes, pleat patterns, and proportions, enabling rapid yet quantifiable motion-based visual experiments (Zhu et al., 2023; Morelli et al., 2023; Morelli et al., 2022).

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accelerates culturally sensitive design iterations (Choi et al., 2021; Morelli et al., 2023; Morelli et al., 2022).

Findings Using Roland Barthes's Semiotic Approach: lines and rhythms based on body movement. The initial stage of collecting initial data is visualized with a concept moodboard consisting of photographs and sketches from observations.

Table 3. Silhouette Process

Experiment Bentuk/ Siluet		
		
		
Moodbaord		

Analysis

Visualizing a fashion project involves communicating ideas by arranging images, colors, and fabric samples into a composition to create the desired style. The images used depict the backdrop of the ronggeng dance—a traditional traveling art form from the Hindu and Buddhist eras—and symbolize Dewi Sri, expanses of rice fields during the harvest season, and Karawang Regency as the “Rice Granary.” The ronggeng dancers joyfully perform, singing and moving spontaneously in harmony with nature—these movements, known as “mencuk,” carry a philosophical meaning, resembling the motions of farming, pounding rice, winnowing grain, and the shaman’s rituals to initiate ceremonies. Natural, neutral colors, traditional Sundanese colors, and the color red, which is synonymous with the ronggeng.

By Pramudyarini, 2025

1. Planning

The planning phase translates initial findings into product objectives, evaluation criteria, and testing plans. This phase involves sketching motifs, silhouettes, and fabric experiments. The meaning embedded in the signs of movement is visualized through form (silhouette), motif, texture, and color. Figure 4 shows a digital motif sketch experiment using lace fabric adorned with ornamental details. A combination of floral and curved ornaments from rice motifs, rhythmic 3D roses, arranged in horizontal repeats to be created using embroidery techniques. The harmony between design elements (flowers, lines, rice), with a black base color or motif repetition, forms a visual rhythm, as if depicting a repetitive yet graceful dance movement. Experiments with natural forms, transformed into more modern graphic patterns.

In the process of creating the silhouette, the designer analyzed the movements of the Karawang ronggeng dance, incorporating geometric structures at the bottom, A-line and symmetrical A-line cuts, and a body-hugging fit at the upper body. Diagonal draping creates curved, voluminous lines that follow the dance’s movements. Subsequently, the motif reveals distinct, sharp lines. The use of transparent fabric (lace) in the jumpsuit highlights a sexy, masculine edge. The rose-shaped details are crafted using macramé, symbolizing the ronggeng’s connection to the mencuk dance movements.

The design process begins by establishing the silhouette first, which can then be developed into alternative designs. Explore the form (silhouette) and determine where details should be placed to highlight the symbolism of the movement; sketches do not need to be colored at this stage. Once the alternative sketches are complete, the design process can proceed with color application. To determine the colors to be used, refer to the theme mood board; Sundanese cultural colors can

FEA is formalized as an evaluation rubric: Function (seam durability/structural integrity, comfort, and fabric texture), Expressive (the integration of dance movement into design elements and their visibility on stage), and Aesthetic (proportions, color-texture harmony, and finishing). Here, ethical strategies (consent, image licensing) and data management are also determined.

The output of this stage is a design development process that prevents design drift (deviation from the concept) and ensures that each revision addresses explicitly identified gaps. Therefore, to determine the silhouette and motif design, the researcher experimented with sketches of a ronggeng dancer in motion to identify design elements

3. Develop Preliminary Form of Product

The initial prototype conveys meaning through energetic movement expressed in diagonal/asymmetrical lines, the rhythmic sway of

the hips in circular drapes, and the repetition of motifs, while the build-up of tension is depicted through textural contrasts rather than literal ornamentation. Sketch experiments using digital printing techniques create rhythm and visual contrast. Motifs can be developed using laser cutting, batik, or embroidery on transparent fabrics (organza/tulle) and digital prints. Experimental textile motifs play with rhythmic movement and visual energy, inspired by the movements of the Karawang ronggeng dance. Repeating curved and swirling lines create a flowing and energetic impression. Colors feature warm tones with high contrast. The visual texture of thin white lines over

bold colors creates a layering effect, blending transparency and light.



Figure 10. Fashion Creation Process Using AI Techniques

Source: Pramudyarini 2025

Mood boards, sketches, and notes on material properties (thickness, stiffness-flexibility, hand feel) are compiled as testable design hypotheses. In principle, every visual decision must be traceable back to a pair of FEA and semiotic indicators, so that aesthetics do not deviate from meaning.

4. Preliminary Field Testing

Preliminary testing (small-n expert/pilot) serves to screen a select group of users, with the aim of identifying flaws in patterns, uncomfortable cuts, fabrics, fabric textures, and also errors in meaning. Through simple walk, turn, bend, and lift tests, along

with a semiotic expert review, the team identifies fit issues, points of seam tension, friction in specific areas, or visual details that trigger unwanted connotations. During testing, researchers use AI technology to assess the visual meaning of the silhouette's sexy, alluring shape, drapery folds, color, and fabric texture. Qualitative data from semiotic notes is paired with descriptive FEA scores, ensuring that revision recommendations are not based on a single opinion. Findings in this phase are generally high-leverage because they target the variables that most significantly impact the design's core performance.



Figure 11. Fashion Creation Process with AI Techniques, 2025

5. Major Product Revision

A major revision is a corrective action based on initial testing, such as pattern adjustments, fabric texture modifications, selection of reinforcing stitches, and simplification of the visual language so that movement becomes the focal point, rather than merely serving as an ornamental backdrop. In the evaluation phase, FEA descriptors are calibrated and their boundaries clarified (e.g., in AI ROM Technique: “5” = unrestricted without pulling fabric during a grand pli ; “3” = sufficient for walk–turns but limited during deep bends). This calibration enhances consistency across subsequent rounds of assessment.

6. Main Field Testing

Main field testing expands the scope of users/scenarios and examines performance stability under more challenging durations and movement variations, while also verifying symbolic meanings under stage lighting. In terms of semiotics, does the audience perceive the energy, rhythm, and charm in line with the concept, paired with FEA summaries and indicators, so that the direction of subsequent revisions is supported by triangulated evidence. If dissonance occurs—for example, if energetic

meaning is interpreted as aggressive—revisions are directed toward the proportions of lines and the rhythm of motifs rather than adding decoration.

7. Operational Product Revision

The operational phase focuses on engineering details: selecting the shape or details for tension areas, placing reinforcement, optimizing the lining to reduce friction, and edge finishing that enhances the perception of quality. Technical documentation is updated into an operational tech pack (final patterns, material specifications, care instructions), so that the design is ready for repeat production with consistent quality.

8. Operational Field Testing

Operational testing simulates real-world conditions where the design is tested under actual or near-actual conditions, over extended periods, and in extreme situations (such as temperature changes, lighting variations, or rapid costume changes). The goal is to assess the design’s durability and reliability—both functionally (not prone to damage, comfortable to wear, maintains stable form) and artistically, ensuring a strong appearance even when the model moves or walks quickly on the catwalk.

9. Final Product Revision

The final revision integrates all lessons into a complete, ready-to-use contemporary design package, including: final sketches, a comprehensive quality control checklist, and care/storage guidelines. On the conceptual side, a dictionary of dance movement elements is compiled as a design guideline. Abrupt or rapid twisting movements can be depicted with measured diagonal lines and asymmetrical panels, while repetitive hip rhythms can be expressed through small-to-large-scale repeating motifs and circular draping. Semiotic coherence is maintained when the design is adapted from dance movements and the human form.

10. Dissemination & Limited Implementation

Limited dissemination (studio classes, exhibitions, pilot performances) serves a dual purpose in scientific communication: sharing processes and results while facilitating ongoing feedback channels. Post-show debriefs are recommended to document audience and model perceptions, enrich the research audit trail, and foster continuous improvement without compromising the integrity of the concept.

In the local cultural context, the term “sexy-alluring” is defined as an aesthetic appeal on stage that relies on the elegance of fabric movement and the integrity of form, rather than visual exploitation; this emphasis ensures public acceptance and ethical practice.



Figure 12. Dissemination Following the 10th Indonesian Charming Face Selection Event Pramudyarini 2025

CONCLUSION

This study successfully demonstrates that the “mencuk” movement in the Ronggeng Karawang dance—traditionally viewed as a simple and spontaneous dance movement—possesses a rich semiotic layer that can be systematically translated into contemporary fashion design. Through Roland Barthes’ triadic semiotic framework (denotation-connotation-myth), three core philosophical meanings were identified: Power (energy, courage, mastery of space), Beauty (flexibility, sensuality, elegance), and Fertility (creativity, natural dynamics,

feminine life force). These meanings are not merely decorative inspirations but are structurally mapped into design elements: diagonal-asymmetrical silhouettes, rhythmic drapery, rice-flower motifs, macramé textures, and strategic material choices (jacquard for stiffness, lace for transparency, taffeta for structure).

The integration of Lamb & Kallal’s FEA models ensures that the resulting designs meet functional requirements (comfort, mobility, durability), expressive values (semiotic coherence with dance movements), and aesthetic qualities

(harmony, proportion, cultural sensitivity). The use of AI-VITON-HD, LaDI-VTON, and TryOnDiffusion-based virtual try-on (VTON) technologies—accelerates the iterative prototyping process without compromising cultural accuracy, enabling rapid testing of silhouettes, draping rhythms, and color compositions in accordance with criteria for a sexy and alluring style.

This study reconsiders the alluring and captivating aesthetics not as visual exploitation, but as stage-centered appeal based on graceful fabric movement and formal integrity, thus maintaining public acceptance and ethical practice within the Sundanese cultural context. The ten-stage R&D cycle (Borg & Gall) provides a transparent sequence of evidence, from contextual understanding to ready-to-disseminate design.

Theoretical contribution: This study extends Barthes' semiotics into fashion design practice, offering a systematic method to translate intangible cultural heritage (dance movements) into tangible design artifacts.

Practical contribution: The produced design guidelines that map specific movements (e.g., sudden turns, hip rhythm, diagonal body movements) to certain design elements (asymmetric panels, repetitive patterns, circular folds) provide a replicable model for other traditional dance forms (e.g., Balinese Legong, Javanese Bedhaya, Saman from Aceh).

Limitations and further research: Field testing is still limited in scale (expert/pilot level). Further research should conduct larger-scale audience perception surveys (n>100) using quantitative semiotic scales and cross-cultural comparisons to examine the universal readability of these translated meanings. Additionally, physical prototyping and trial usage are required to complement AI-based VTON simulations.

REFERENCES

- Ahmad, Y. B., Anoeграjekti, N., & Attas, S. G. (2021). Peran seni dalam pemberdayaan masyarakat: Goyang Karawang sebagai identitas budaya lokal.
- Atkinson, D. (2012). *Fashion design: Process, innovation & practice*.
- Atkinson, Mark. 2012. *How to Create Your Final Collection*. UK: Laurence King Publishing.
- Barnard, M. (1995). *Fashion as communication*. Routledge.
- Barnard, M. (2006). *Fashion theory*. Routledge.
- Barthes, R. (1967). *Elements of semiology* (A. Lavers & C. Smith, Trans.). Hill and Wang.
- Barthes, R. (1972). *Mythologies* (A. Lavers, Trans.). Hill and Wang.
- Barthes, R. (1983). *The fashion system*. University of California Press. DOI: 10.14361/9783839404537
- Borg, W. R., & Gall, M. D. (2003). *Educational research: An introduction*. Pearson. Boston: Allyn & Bacon
- Bowen, G. A. (2009). *Document analysis as a qualitative research method*. Qualitative
- Bruzzi, S., & Gibson, P. (2013). *Fashion and celebrity culture*. Bloomsbury.
- Calefato, P. (2004). *The clothed body*. Berg.
- Cannadine, D. 2010. The context, performing and meaning of ritual. *The Invention of Tradition*, 101–164. New York.
- Caturwati, Endang. *Sinden Penari di Atas di Luar Panggung*, cetakan 1 (Sunan Ambu STSI Press Bandung, 2011), Pustaka Pelajar
- Chaney, D. (2004). *Lifestyle: Studies in the sociology of consumption*. Routledge.

- Cho, Emily, Neila Fisher, and Hermine Lueders. 1986. *Its You Looking Terrific Whatever Your Type*. New York: Villard Books.
- Choi, S., Park, S., Lee, M., & Choo, J. (2021). VITON-HD: High-resolution virtual try-on via misalignment-aware normalization. *CVPR*.
- Elih Hayati, Juju Masunah, Yuliawan Kasmahidayat. 2020: *The Eksotik Dance of Goyang Karawang*, *Advances in Social Science, Education and Humanities Research*, volume 519 *Proceedings of the 3rd International Conference on Arts and Design Education (ICADE 2020)*.
- Fele, B., et al. (2022). C-VTON: Context-driven image-based virtual try-on network. *WACV*.
- Halliday, Rebecca. *The Fashion Show Goes Live Exclusive and Mediatized Performance*. Bloomsbury Publishing, Great Britain, 2022.
- Han, X., Wu, Z., Wu, Z., Yu, R., & Davis, L. S. (2018). VITON: An image-based virtual try-on network. *arXiv:1711.08447*.
- Hopkins. John. 2012. *Fashion Design*. Switzerland: AVA publishing.
- Imro'Atul Mufidah, *Perkembangan Kesenian Ronggeng Di Daerah Jawa Barat Tahun 1940-1965*, *AVATARA*, e-Journal Pendidikan Sejarah Volume 4, No. 3, Oktober 2016
- Indarti. *Metode Proses Desain Dalam Penciptaan Produk Fashion Dan Tekstil*, *BAJU Journal of Fashion & Textile Design Unesa*. ISSN 2747 – 2574 th, 2020
- Indrayuda. *Tari Tradisional Dalam Ranah Tari Populer: Kontribusi Relevansi, Dan Keberlanjutan Budaya*, H Vol. XIV No.2 Th. 2015.
- Kawamura, Yuniya. 2005. *Fashion-ology: An Introduction to Fashion Studies*. Fifth Avenue, New York: Berg
- Koberg, D., & Bagnall, J. (1981). *The allnew universal traveller: A soft-systems guide to creativity, problem-solving, & the process of reaching goals*. Los Altos, CA: W. Kaufmann.
- Lubart, T.I. (2001). Models of the creative process: Past, present and future. *Creativity Research Journal*, 13(3–4), 295–308. https://doi.org/10.1207/s15326934crj1334_07
- Morelli, D., et al. (2022). *Dress Code: High-resolution multi-category virtual try-on*. *CVPR Workshops, "Conference Paper"*
- Morelli, D., Fincato, M., Cornia, M., Landi, F., Cesari, F., & Cucchiara, R. (2023). *LaDI-VTON: Latent diffusion textual-inversion enhanced VTON*. *ACM MM*.
- Nakamichi, Tomoko, 2011. *Pattern Magic 2*. London: Laurence King Publishing Ltd
- Peirce, C.S. (1991). *Peirce on Signs*. Chapel Hill: UNC Press.
- Rahmaputri, H. A. Z., Budiman, A., & Taryana, T. (2024). *Ibing pencug gaya Kaleran Kabupaten Karawang*. *Ringkang*, 4(3).
- Ramlan, N. R. L. (2013). *Jaipongan: Genre tari generasi ketiga*. *Resital*, 14(1). *Research Journal*.
- Rosala, D., Supriyatna, A., & Suryawan, A. I. (2018). *Pencugan ibing penca Topeng Pendul Kabupaten Karawang*. *Panggung*, 28(1), 17–24.
- Sedyawati, E. (2006). *Tari: Tinjauan Historis, Fungsi, dan Maknanya*. Jakarta: LIPI Press
- Suryaman, A. (2019). *Ibing saka: Telaah kreativitas Namin dalam Bajidoran*. *Jurnal Seni Makalangan*, 6(1), 22–28.

Wang, B., Zheng, H., Liang, X., Chen, Y., Lin, L., & Yang, M. (2018). CP-VTON: Toward characteristic-preserving image-based virtual try-on. ECCV.

Williamson, J. (2002). *Decoding Advertisements*. London: Marion Boyars.

Zhu, L., et al. (2023). TryOnDiffusion: A tale of two UNets. CVPR.