

AESTHETICS OF ECOPRINT WITH QUILTING TECHNIQUE APPLICATION ON FASHION PRODUCTS

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ABSTRACT

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This research aims to obtain ecoprint aesthetic results of the application of quilting techniques on fashion products as assessed by 4 expert panelists based on A.A.M Djelantik's aesthetic theory with indicators of form/appearance, weight/content and appearance/presentation. The research method uses quantitative descriptive with pre-experimental design, one shot case study and data analysis techniques use descriptive statistics. The fashion products made are in the form of 5 vest designs with different design placement. The data collection technique uses mixed lifting. The overall aesthetic results based on aspects of form/appearance, weight/content and appearance/presentation obtained a percentage score of 90% in the very good category. The shape/form indicator consists of design elements and principles, namely shape, color, texture, harmony, rhythm and proportion, which received the highest percentage score of 91%. The weight/content indicator is based on ideas, the source of inspiration used is "Poppy Fields" which received the second highest score of 90% in the very good category. The appearance/presentation indicator based on means/media received the lowest score of 89% in the very good category. The product with the highest rating was design 2, namely 95%, and the lowest score was obtained by designs 3 and 4, namely 88%, with a very good category among the five design products.

Keywords: Aesthetics, Ecoprint, Quilting, Vest

1. INTRODUCTION

'Eco' is defined as environmentally friendly, and 'print' is the same as printing, so ecoprint is a manual fabric motif printing technique using natural basic materials by attaching them until a motif appears on the fabric (Faridatun, 2022: 230). Ecoprint is the technique of transferring the shape of flowers, leaves, or stems onto the surface of a processed fabric whose wax layer has been removed so that the plant color is easily absorbed (Irianingsih, 2018: 7, cited in Putra et al., 2022: 12). The results of ecoprint vary depending on the type of plant, the part of the plant used, the duration of processing, pH, water quality, minerals in the water, processing method, fiber type, and other factors (Purwani, 2023: 71). Ecoprint is an adaptation technique of natural dyeing, where the process takes color from plant extracts. Ecoprint differs from natural dyeing because ecoprint prints the shape and color of the plants, thus being varied. There are two kinds of ecoprint techniques: steam and

pounding. Steam is a technique of transferring plant color pigments by steaming. Meanwhile, pounding is a technique of transferring plant color pigments to the fabric by hitting it (Musrifah, 2023: 1). Both techniques have their respective advantages and disadvantages. The pounding technique is the easiest to do and does not require many tools and materials, but the resulting motif is not durable when the fabric is washed and takes a long time to print the leaf motifs one by one. In contrast, the steam technique will produce a durable motif, the time required is short, but it requires more tools and materials, requires high skill or even knowledge, and the cost incurred to make ecoprint using this technique is also higher (Nurliana et al., 2021).

Indonesia has many plants that can be used as coloring materials, so ecoprint is still surviving today. This is often associated with environmental issues because natural colors are more environmentally friendly than chemical dyes. This is the reason why ecoprint is popular among environmentally conscious people (Setiawan & Kurnia, 2021: 214). With these advantages, ecoprint also has weaknesses: ecoprint is considered not yet offering something interesting and creative because the designs and motifs seem to lack development (Setiawan & Kurnia, 2021). Using natural dyes will create something unique, but some also lack stability in providing color or motif, so a process of mordanting and fixation is needed to bind and sharpen the color (Nada & Widowati, 2020: 124). Mordanting and fixation are the processes of soaking the fabric using certain substances to remove the wax layer on the fabric so that natural dyes adhere better. This process is carried out at the beginning and end of the process (Andayani et al., 2022: 35).

Ecoprint has undergone many experiments, but the motifs printed on the fabric still have a high level of fading, so reinforcement of the ecoprint motif is needed (Metta, 2021). In textile design, several techniques can be used to emphasize the motif or design on the material, such as tie-dye, batik, adding decorative stitches, or with fabric manipulation (Rai Technology University, 2013: 15, cited in Metta, 2021). Fabric manipulation is an idea of using certain techniques to change or add shape and nuance to the surface of a piece of textile material (Latifah, 2020, cited in Handayani & Ruhidawati, 2022). There are several types of fabric manipulation, namely tucking, gathering, shirring, cording, ruffles, flounces, godets, darts, pleating, smocking, quilting, and surfing (Singer, 2013, cited in Handayani & Ruhidawati, 2022).

Quilting is a technique of combining several layers of fabric or foam to obtain a certain thickness. Quilting is also used to create certain patterns or motifs and form the illusion of stitching patterns so that they appear more real and textured (Silawati, 2022). Therefore, the quilting technique is suitable for application to ecoprint motifs, as it can clarify the motifs and make the ecoprint look more real and textured. This ecoprint with quilting technique application will be applied to fashion products in the form of a Vest. A vest is an upper body garment worn outside a shirt or blouse. A vest is chosen as an additional garment that has more functional value in appearance, one of which is as a more practical body warmer because it has no sleeves (Anindya, 2021). The vest trend is still surviving today because of its diverse materials and models. It can be used as a top or as a body warmer, all depending on the material of the vest itself (Powell, 2024). Vest products are widely used by various groups, especially teenagers who like casual and fashionable styles (Utomo, 2023).

Therefore, the researcher developed a vest product made of ecoprint material using the steam technique and applied the quilting technique, referring to the Fashion Trend 2024/2025, Resilient with the theme Heritage - Reminiscence, and will be assessed based on A. A. M. Djelantik's aesthetic theory based on the aspects of form/appearance, weight/content, and appearance/presentation.

2. METHOD

The research method is a scientific way to obtain data with a specific purpose (Sugiyono, 2013). This research method uses an experimental research method with a quantitative approach. The experimental method is a method carried out to find the effect of a treatment on something else under controlled conditions (Sugiyono, 2013). This type of research method uses Pre-Experimental with the design being One-Shot Case Study. The research instrument used is a mixed questionnaire with assessment by 4 expert panelists. Data analysis uses descriptive statistics

3. RESULTS AND DISCUSSION

In this research, the research object consists of 5 products in the form of vests. Each design will be made with an ecoprint motif with a different arrangement. This product refers to the Fashion Trend 2024/2025, with the sub-theme Reminiscence and Exotic – Casual style.

Source of Inspiration

The ecoprint motif design on this vest product is inspired by "Poppy Fields" or what can also be called a poppy flower field.



Figure 1. Poppy Fields

Moodboard



Figure 2. Moodboard

Design 1

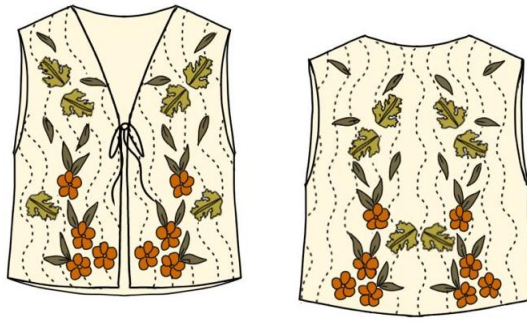


Figure 3. Design 1

Design 2



Figure 4. Design 2

Design 3



Figure 5. Design 3

Design 4



Figure 6. Design 4

Design 5

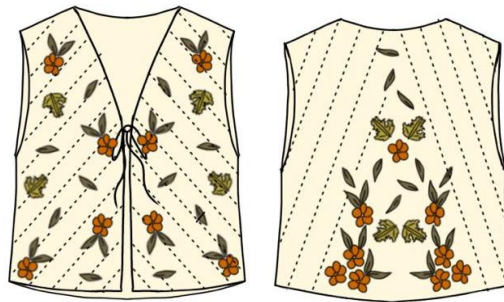


Figure 7. Design 5

Results

Product development in the form of 5 vests is based on the inspiration source "Poppy Fields" with an exotic – casual style and the 2024/2025 trend forecasting Resilient with the theme Heritage – Reminiscence. The target market is adult women in the middle social class group, aged 20 – 45 years, who like casual style.

The product is made of rayon twill material in broken white color, applied with ecoprint and the quilting technique with different motif placements in each design. The vest opening is located at the front using ties. The vest length is waist length and is made in size L. The ecoprint motif design uses 3 types of plants with orange, light green, and grayish-green colors, and the quilting thread color on the vest is broken white.

The data was obtained using a mixed questionnaire given to 4 expert panelists, who are:

- Dr. Wesnina, M.Sn., lecturer in Fashion Design at Jakarta State University.
- Muhammad Fahmi, M.Sn., lecturer in Fashion Design at Jakarta Arts Institute.
- Hammimatul Azizah, Coordinator of the Indonesian Ecoprint Association for the Bekasi region and Crafter Patchwork & Quilting.
- Ria Prawita Sari, designer and member of the Indonesian Ecoprint Designers Association and Founder of the Ageman Brand.



Figure 8. Product 1

Product 1 has the same motif design placement on the front and back, which is standing. The quilting line on product 1 is vertical with a distance of 2 cm.



Figure 9. Product 2

Product 2 has scattered motif design placement on both the front and back. The motif design spreads throughout the vest. The quilting line on product 2 is made randomly but flows following the location of the plants.



Figure 10. Product 3

Product 3 has a running motif design placement on the front and back. The design is made to connect on the front right and left. The quilting line on product 3 is made with intersecting diagonal lines with a distance of 4 cm, forming a rhombus.



Figure 11. Product 4

Product 4 has a border motif design placement on the front, and centralized and corner motifs on the back. The quilting line on product 4 is made with intersecting vertical and horizontal lines, forming a square with a line distance of 3 cm.



Figure 12. Product 5

Product 5 has scattered motif design placement on the front and standing on the back. The quilting line on product 5 is made with mirrored diagonal lines, creating an impression of tapering upwards on the front and back with a distance of 2 cm.

Discussion

The following are the final results of the Aesthetics of Ecoprint with Quilting Technique Application on Fashion Products using A.A.M Djelantik's theory based on the aspects of form/appearance, weight/content, and appearance/presentation.

Indicator	Design 1	Design 2	Design 3	Design 4	Design 5	Total (Average)
Aspect of form/appearance	316	340	310	311	316	91%
Aspect of weight/content	58	58	58	58	58	91%
Aspect of appearance/presentation	43	43	43	43	43	89%
Overall Score	417	441	411	412	417	2.098
Overall Result						2.098
Average Result						43.08

Table 1. Final Results of Aesthetic Assessment

Maximum Score Amount = Value Weight X Number of Panelists X Number of Products X Number of Statements

Very Good (VG) = $4 \times 4 \times 5 \times 29 = 2.320$

Score (VG) = $2.320/2.320 \times 100\% = 100\%$

Quite Good (QG) = $3 \times 4 \times 5 \times 29 = 1.740$

Score (QG) = $1.740/2.320 \times 100\% = 75\%$

Less Good (LG) = $2 \times 4 \times 5 \times 29 = 1.160$

Score (LG) = $1.160/2.320 \times 100\% = 50\%$

Very Not Good (VNG) = $1 \times 4 \times 5 \times 29 = 580$

Score (VNG) = $580/2.320 \times 100\% = 25\%$

Score = $(2.098)/(2.320) \times 100\% = 90\%$

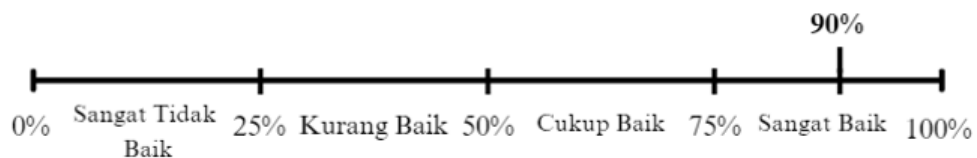


Figure 13. Aesthetic Interval

The final overall result of the 3 aesthetic aspects based on A.A.M Djelantik's theory on ecoprint with quilting technique application obtained a score of 90% in the very good category. This result indicates that the application of the 3 aesthetic aspects, namely

form/appearance, weight/content, and appearance/presentation, is assessed as very good and appropriate.

The maximum score for the design criterion (if each design gets the highest score) is:

$$\text{Number of Panelists} \times \text{Number of Statements} \times \text{Highest Weight} = 4 \times 29 \times 4 = 464$$

$$\text{Score based on design} = (\text{Total result per design}) / (\text{Maximum score}) \times 100\%$$

$$\text{Design 1} = 417/464 \times 100\% = 89\%$$

$$\text{Design 2} = 441/464 \times 100\% = 95\%$$

$$\text{Design 3} = 411/464 \times 100\% = 88\%$$

$$\text{Design 4} = 412/464 \times 100\% = 88\%$$

$$\text{Design 5} = 417/464 \times 100\% = 89\%$$

The following is a diagram of the aesthetics of ecoprint with quilting technique application on fashion products with the assessment object being 5 vest products as follows:

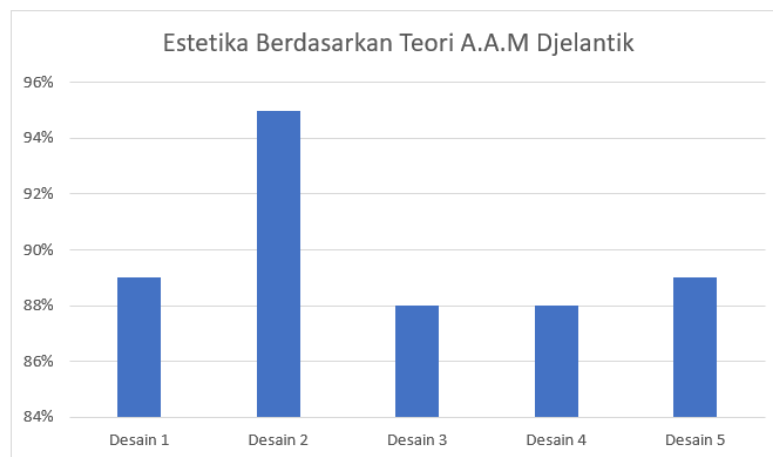


Figure 14. Diagram of Each Design

Based on the diagram above, design 2 obtained the highest score, which is 95%. Design 2 is a product that falls into the very good category and is very suitable with aesthetics based on the aspects of form/appearance, weight/content, and appearance/presentation compared to other designs. This is influenced by the arrangement of the ecoprint motif and its harmony with the flowing quilting lines and having a rhythm that follows the location of the plant motifs, so the design does not look rigid. The application of the thread color in design 2, which is made to resemble the color of the plant motif, thus creating a soft color, also influences the score.

Meanwhile, designs 3 and 4 obtained the lowest score with a total of 88%, but they are still in the very good category. Designs 1, 4, and 5 obtained a balanced score of 89%.

The following is a diagram of the aesthetic results of ecoprint with quilting technique application on fashion products:

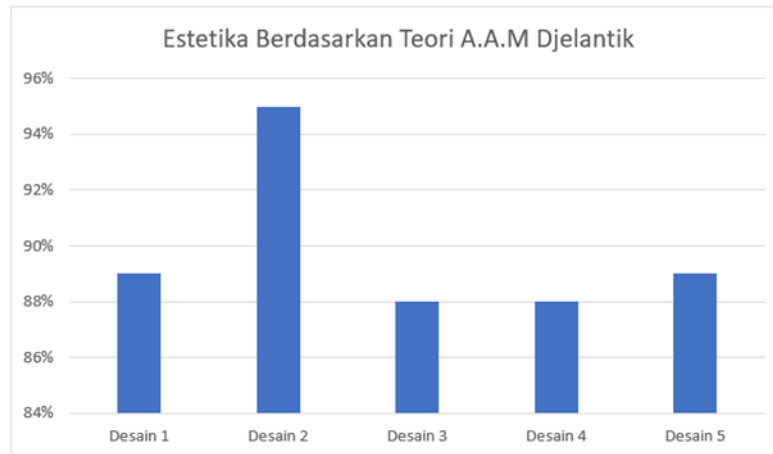


Figure 15. Diagram of Indicators

Based on the diagram above, form/appearance obtained the highest percentage score, which is 91%, in the very good category. This indicates that the application of design elements, which include shape, color, texture, and design principles of harmony, rhythm, and proportion, is aesthetically very good and appropriate in its application to ecoprint products with the quilting technique.

In the second place, the aspect of weight/content was obtained with a percentage score of 91%. This shows that the product's message regarding the source of inspiration is assessed as very good with the application of colors and plants used on the product.

In the last place, the lowest score was obtained by the aspect of appearance/presentation (means/media) with a percentage score of 89% in the very good category. This shows that the use of the vest as the means or media for the ecoprint with quilting technique application product is assessed as very good and appropriate, because vests can be made using thick or layered materials like a puff vest, making them a sleeveless jacket that does not give a bulky impression and is more flexible to wear.

4. CONCLUSION

Based on the research results of ecoprint with quilting technique application on fashion products through the aspect of form/appearance, among the five product designs, design 2, with a scattered motif arrangement and random and flowing quilting lines, obtained the highest score in the very good category. This means that the aspect of form/appearance, including shape, color, texture, harmony, rhythm, and proportion, is considered very good and in accordance with aesthetic theory. Meanwhile, design 3, with a running motif arrangement and rhombus-shaped quilting lines, obtained the lowest score. This indicates that the aspect of form/appearance, including shape, color, texture, harmony, rhythm, and proportion, is considered to still be able to be explored or improved to be in accordance with aesthetic theory. The placement of the ecoprint motif and the selection of the quilting line shape in each design are important things to develop so that a better design is created.

Based on the aspect of weight/content, which refers to the source of inspiration "Poppy Fields," all five ecoprint product designs with quilting technique application received the same score in the very good category because the only difference lies in the arrangement

of the motifs. This indicates that the product's message regarding the source of inspiration is assessed as very good with the application of colors and plants used on the product. Based on the aspect of appearance/presentation, all designs obtained the same score because the means or media for the ecoprint with quilting technique application were presented on a vest product with the same shape, design, and size. The aspect of appearance/presentation of these 5 products received a score in the very good category. This indicates that the creation of the vest product is assessed as suitable for ecoprint with the quilting technique application.

Based on the explanation above, it can be concluded that the aesthetics of ecoprint with quilting technique application on fashion products have very good results based on the aspects of form/appearance, weight/content, and appearance/presentation.

REFERENCES

- Faridatun, F. (2022). Ecoprint; Cetak Motif Alam Ramah Lingkungan. *Jurnal Prakarsa Paedagogia*.
- Putra, D., Irawati, A., & Swissia, P. (2022). Pkm Pelatihan Pembuatan Ecoprint Untuk Ibu-Ibu Pkk Berdampak Covid-19 Di Komplek Bcl Hajimena Lampung Selatan. *Abdimas Toddopuli: Jurnal Pengabdian Pada Masyarakat*, 4(1), 11–20.
- Purwani, S. (2023). *ECOPRINT PADA KULIT DOMBA*. 9(1), 70–76.
- Musrifah, I. L. (2023). *Sejarah Perkembangan Ecoprint*. 1.
- Nurliana, S., Wiryono, W., Haryanto, H., & Syarifuddin, S. (2021). Pelatihan Ecoprint Teknik Pounding Bagi Guru-Guru PAUD Haqiqi di Kota Bengkulu. *Dharma Raflesia : Jurnal Ilmiah Pengembangan Dan Penerapan IPTEKS*, 19(2), 262–271.
- Setiawan, G., & Kurnia, E. D. N. (2021). *EVOLUSI ECO PRINT: PENGEMBANGAN DESAIN DAN MOTIF ECO PRINT* Eduardus Dandi Naga Kurnia. *Jurnal Seni Kriya*.
- Nada, F., & Widowati. (2020). *Kualitas Hasil Ecoprint Teknik Steam*
- Metta, J. (2021). *Penilaian Estetika Kain Ecoprint Dengan Aplikasi Tusuk Hias*. Jakarta : Fakultas Teknik, Universitas Negeri Jakarta.
- Handayani, P., & Ruhidawati, C. (2022). Penerapan Manipulating fabric dengan Teknik Tucking pada Busana Pesta. *TEKNOBUGA: Jurnal Teknologi Busana Dan Boga*, 10(2), 68–73.
- Andayani, S., Dami, S., & ES, Y. R. (2022). Pelatihan Pembuatan Ecoprint Menggunakan Teknik Steam Di Hadimulyo Timur. *SINAR SANG SURYA: Jurnal Pusat Pengabdian Kepada Masyarakat*.
- Larasati, N., & Yulistiana. (2019). Penerapan Motif Daun Pepaya Dan Adas Sowa Dengan Teknik Eco Printing Pada Blus. *Jurnal Tata Busana*, 8(2), 8–12.
- Silawati, D. A. (2022, August 22). 6 Kerajinan dari Teknik Quilting yang Bisa Dijual, Ide Bisnis nih! IDN Times. <https://www.idntimes.com/life/diy/dwi-ayu-silawati/kerajinan-dari-teknik-quilting-c1c2>

Anindya. (2021). Vest (Waistcoat atau Rompi). Tribunnewswiki.Com.

<https://www.tribunnewswiki.com/2021/05/26/vest-waistcoat-atau-rompi>

Powell, V. L. (2024). How to Style a Vest Like a Fashion “It Girl.” 18 Maret 2024.

<https://www.instyle.com/summer-vest-trend-how-to-wear-7546741>

Utomo, D. (2023). *5 Vest Cewek dari Brand Lokal untuk Tampilan Kasual dan Modis*.

Sugiyono. (2019). Metode Penelitian Kualitatif, kuantitatif dan R&D
Surya, R. A., Fadlil, A. ., & Yudhana, A. (2017). Ekstraksi ciri metode Gray Level Co-Occurrence Matrix (GLCM) dan Filter Gabor untuk klasifikasi citra batik pekalongan. *Jurnal Informatika: Jurnal Pengembangan IT*, 2(2), 23–26.