

**AVANT-GARDE FASHION DESIGN INSPIRED BY PIAZZA SAN PIETRO  
THROUGH PLEATING & WEAVING**

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**ABSTRACT**

Culture and life evolve faster than fashion, so experimental design is encouraged to develop. Fashion is not only in the form of clothes, but it is also seen as a performing art. This study analyzes the pleatization and weaving techniques in the design of avant-garde fashion that has been inspired by Piazza San Pietro. The Double Diamond method is used, covering several stages including discover, define, develop, and deliver. This research was conducted at the Fashion Design Laboratory, Faculty of Vocational Studies, by involving three experts with structured observation sheets, and then a descriptive analysis was carried out using an average score. The results indicate that the average score of 4.22 categories (excellent), with a silhouette of 4.33, conceptual suitability of 4.00, creativity of 4.00, technique of 4.00, color and material of 4.33, and runway performance of 4.67, which indicates a strong visual effect with the success of the avant-garde concept. The architectural elements of Piazza San Pietro, for example, the curved columns with magnificent structures, are shown by their shape, texture and volume. The pleated technique has formed a rhythm, while the weaving has provided depth with a structure that produces a design that is conceptual, unique, and according to avant-garde principles.

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**INTRODUCTION**

Fashion has an important role in human life, which is not only used as a way to cover the body but also used as a means to express oneself and be a reflection of social identity. In this context, all aspects of style or appearance that appear as trends in a community are included in the sense of fashion [1]. Rapid and profound changes often occur in the fashion industry by being influenced by social developments, technological advancements, and ever-evolving environmental conditions [2].

Along with the development of the fashion industry, various new styles have begun to emerge, one of which is the avant-garde style. Avant-garde is basically an approach often found in architecture and cultural arts, although its understanding is still not widespread. In the world of fashion, avant-garde refers to works that are innovative, creative, and experimental, both in terms of design and production methods [3].



One of the hallmarks of avant-garde fashion is an experimental approach to silhouettes and an exploration of materials, including the use of recycled materials such as plastic, cardboard, and used fabrics [4]. This statement highlights the development of innovative forms and profound creative ideas, which ultimately result in unique and conceptual fashion designs [5].

In avant-garde fashion design, fabric manipulation techniques play a very important role because they can produce extraordinary shapes and textures. Fabric manipulation is a method of processing fabric with the aim of enhancing the aesthetic value of clothing and concealing imperfections in the fabric or the wearer's body shape [6]. This technique includes several methods, such as pleating and weaving. Pleating is the folding of fabric to give clothing additional texture [7]. These pleats in fabric can be created by ironing or pressing, which produces permanent creases [8]. Meanwhile, weaving is the process of manipulating fabric by interlacing materials to create attractive shapes, such as mats and wall hangings [9]. In the world of fashion itself, the weaving process can be done using various types of fabrics that are adjusted to the clothing material used [10].

Avant-garde fashion is not only inspired by visual elements, but can also be developed through the historical dimension, with the philosophy contained in classical art. The focus of the research is on avant-garde fashion design inspired by Piazza San Pietro, an architectural space rich in symbolic and spiritual meaning. This place is used as a location for pilgrims with several religious activities. The concept was formed by the application of the pleated technique, which indicates that the rows of magnificent columns that surround the piazza become a symbol of strength and constancy. Meanwhile, the woven motif is shown from the philosophical meaning of Piazza San Pietro as a space that has embraced and united by being formed through textures that are interconnected with each other. With these two manipulation techniques, it is hoped that avant-garde fashion can be created with an unconventional shape, which not only displays aesthetic value but can also convey the conceptual relationship between architecture and fashion design. Based on the description of the background, the title "Avant-Garde Fashion Design Inspired by Piazza San Pietro using Pleating and Weaving Techniques" was chosen by the author.

## **METHOD**

The Double Diamond model developed by the Design Council in 2005 is known as a widely recognized design process framework [11]. This framework gives direction to designers through a thinking approach with an exploratory nature that remains structured so that the development of ideas can be given a boost, and design effectiveness can be improved. The model consists of four main stages with Discover, Define, Develop, and Deliver among others [12]. In Hartana's (2024) research, the Double Diamond Model was used to design and evaluate a web-based logistics management system [13]. Meanwhile, in another study, Norinta Selsa Hayu Palupi and Indrawan Ady Saputro used the Double Diamond method for systematic application design that was adjusted to the needs of users [14].

The process stages in the Double Diamond model are divided into four phases, as follows:



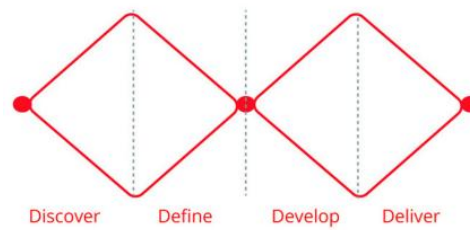


Figure 1. Double Diamond Model

### *Discover*

The first stage in the Double Diamond method is called Discover, which is the process of collecting as many ideas and information as possible as a basis for designing a work. At this stage, various references are collected by the researcher for the understanding of the friend to be studied. Based on the research title "Designing Avant-Garde Fashion with Inspiration from Piazza San Pietro Using Manipulating Pleats and Weaving Techniques", the researcher began to study avant-garde fashion in depth by including its history, form, and appearance. Fabric manipulation techniques, especially pleats and weaving, are also studied to be able to understand how these techniques can produce attractive shapes and textures in fashion. Piazza San Pietro is used as a source of inspiration, with more specifically its shape, composition, folding details, and emotional expression.

All of this information is used as the foundation to create a unique and meaningful fashion design. Additionally, the researcher gathers images and references from art, fashion, and design to support the design process. With all this data, the researcher is well-equipped to move on to the next stage of the design process.

### *Define*

Define is the process of analyzing and processing the information collected in the previous stage to formulate the problem clearly and in detail [15]. Next, the researcher began collecting images related to the main themes of this study, namely Piazza San Pietro, pleats, and weaving. The collected images were then arranged into a moodboard.

A moodboard is a visual medium that combines illustrations, color selections, and various material elements representing the design ideas to be realized in the fashion work. Moreover, the moodboard serves as a tool to stimulate and develop creativity, making it an essential component in the design process, especially for fashion and textile designers. On the moodboard, the researcher provided guidance regarding the color plan to be used.



Figure 2. Moodboard

### *Develop*



The Develop stage in the Double Diamond method is the process where the ideas gathered and analyzed in the Discover and Define stages are further developed into clearer, more applicable design concepts. In this phase, researchers began the process of designing a number of avant-garde garments by integrating key elements from Piazza San Pietro, such as circular structures, rows of columns, and spatial harmony. These elements were then interpreted through fabric manipulation techniques, namely pleating and weaving. The pleating technique was interpreted as a representation of the magnificent columns that are one of the hallmarks of Piazza San Pietro. Meanwhile, the weaving reflected the essence of the Piazza San Pietro building as an embracing and unifying space, which was realized through the processing of interwoven textures.



Figure 3. Design

The five designs that have been developed take into account the principle of balance to create visual harmony in the garments. In addition, each design highlights the use of pleats as a key element, which not only serves as decoration but also reinforces the texture and structure of the fabric surface. Of the five designs, the following have been selected.



Figure 4. The Chosen Design

The design was then developed through technical drawings, which included details of the garment's construction, including the pattern, the placement of pleats and weaves, and the sewing method. The following shows a technical drawing of the selected fashion design.

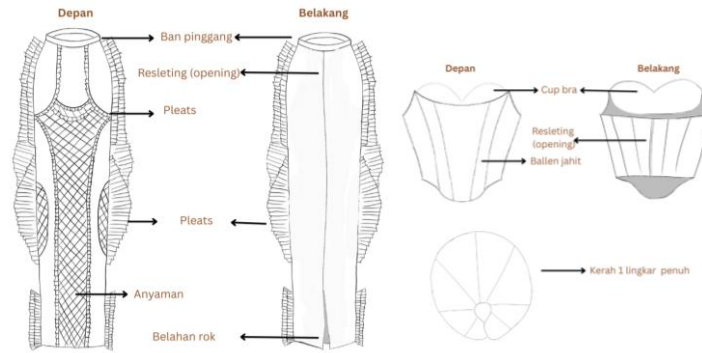


Figure 5. Technical Drawing

### Deliver

At this stage, the focus of research is given to the implementation and evaluation of the solutions that have been developed. In the context of this research, the stage covers the clothing production process, evaluation of the design that has been realized, and design improvements carried out on the basis of the feedback that has been collected.

## RESULTS AND DISCUSSION (6-14)

### Results of the avant-garde fashion design inspired by Piazza San Pietro through pleating and weaving

In the process of designing avant-garde fashion, the first step is to determine the main theme, namely, Piazza San Pietro. The theme was developed by observation and visual analysis of architectural forms, which were then realized in the form of fashion design with the implementation of pleated and woven techniques. The color selection is also carried out to show the architectural character of Piazza San Pietro by highlighting the warm and elegant impression.

#### 1. Design Analysis

The color palette that dominates this design is defined as a copper color that is able to create a warm but still elegant visual impression. The main focal point of this design is given direction by the large round collar taken from the silhouette inspiration of Piazza San Pietro. To create volume and structure where the folds are placed on the sides of the skirt while weaving techniques are applied to the center of the skirt to enrich the texture and reinforce the avant-garde character. Overall, the harmonious combination of shapes, textures, and colors is able to produce a unique look with an unconventional silhouette.



Figure 6. Design Analysis

## 2. Body Measurements

Table 1. Body Measurement Data

Description	Size (cm)
Bust	82
Neck	36
Waist	72
Hip	96
Hip Height	18
Shoulder Width	12
Side Length	16
Back Length	37
Front Length	32
Bustier Length	5
Skirt Length	120

Body measurements are an important part of making clothing patterns, where accuracy in measurements is needed because it has a direct impact on the suitability of size, comfort, and the final result of the clothes when worn.

## 3. Patterns Making Process

The clothing manufacturing process begins with creating a basic pattern based on an approved design. Pattern making plays a very important role in the fashion industry, as accurate patterns will produce clothes that fit well and are comfortable to wear. In this study, patterns for avant-garde clothing were produced digitally using the Richpeace application. This step was taken to ensure a high level of accuracy and to facilitate the process of adjusting and evaluating patterns before they were applied to the fabric.

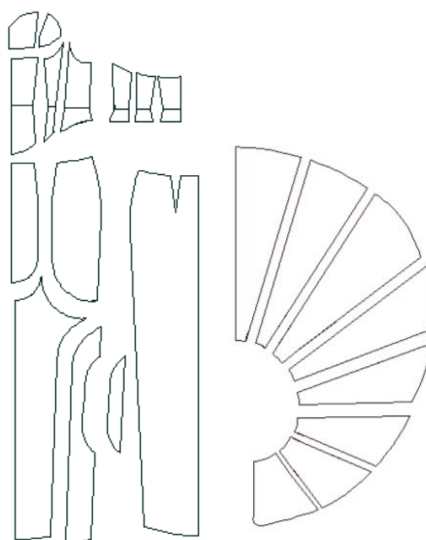


Figure 7. Break The Fashion Pattern

## 4. Sewing Process

In the sewing process, pieces of fabric are joined together according to predetermined design and construction stages. After the pattern is transferred to the fabric and cut, the fabric is



then marked before sewing, starting with making folds, joining garment components, and attaching details and zippers. Each stage of this work is accompanied by an ironing process, and ends with a finishing stage that includes sewing the edges, attaching buttons, and final ironing.

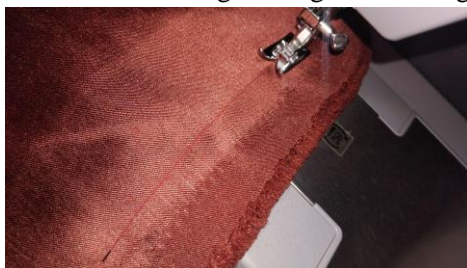


Figure 8. Sewing Process

### 5. Final Result of the Avant-Garde Fashion Design

The final products were evaluated through observation by three experts in the field of fashion design.

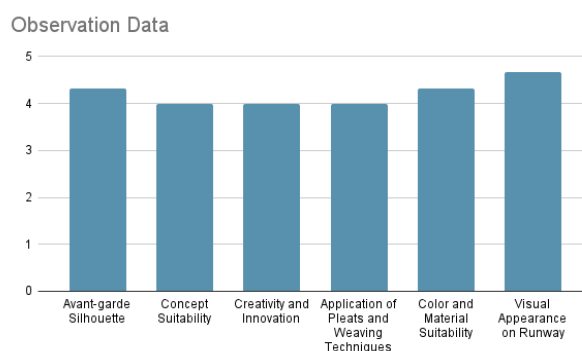


Figure 9. Observation Data of the Final Product

Table 2. Expert Validation Results

Assessment Aspect	Average Score	Category
Avant-garde Silhouette	4.33	Very Good
Concept Suitability	4	Good
Creativity and Innovation	4	Good
Application of Pleats and Weaving Techniques	4	Good
Color and Material Suitability	4.33	Very Good
Visual Appearance on Runway	4.67	Very Good
Overall Average	4.22	Very Good

Based on Table 2, the average overall design score was 4,22, which can be categorized as excellent. Of the various aspects evaluated, visual appearance on the catwalk received the highest score. Meanwhile the aspects that received the lowest score included concept suitability, creativity and innovation, and color and material suitability.

### Discussion



This study examines the development of avant-garde fashion inspired by Piazza San Pietro through the application of pleats and weaving techniques, covering all stages of the production process to the final garment comprehensively. The analysis in this study focuses on the correlation between the assessments given by experts, the conceptual basis of the design, the relevant fashion theory framework, and the characteristics inherent in avant-garde fashion.



Figure 10. The Final Avant-Garde Fashion Product

### **Avant-Garde Silhouette**

The average score obtained for this aspect is 4.33, with it being included in the very good category. Based on this score, which can be seen, the clothes managed to provide an overview of the characteristics of avant-garde fashion with its unconventional shape and experimental nature.

### **Concept Suitability**

The average score for the suitability of the concept reached 4.00, so in the results of this assessment, it was included in the good category. This indicates that the initial design concept has been successful enough to be implemented in its final visual form.

### **Creativity and Innovation**

The average score obtained for the creativity and innovation aspects is 4.00, which is included in the good category. Based on the results of the research, it can be concluded that fashion has the ability to display elements of originality through the process of transforming architectural elements into wearable clothing.

### **Application of Pleats and Weaving Techniques**

The application of pleating and weaving techniques obtained an average score of 4.00 and was included in the good category. Based on the results of the assessment, it can be concluded that the fabric manipulation technique has proven to be effective in supporting and creating an improvement in the structure and texture of clothing.



### **Color and Material Suitability**

The match between color and material obtained an average score of 4.33, which is entering the very good category. This score is a guide to the selection of colors and materials that have succeeded in creating support for the achievement of conceptual and visual goals in fashion design.

### **Visual Appearance on Runway**

The visual display on the runway obtained an average score of 4.67 in the excellent category. This is a clue to the clothes displayed, having a strong visual impact and being able to convey the avant-garde concept effectively.

## **CONCLUSION**

Based on the results of the research, it can be concluded that the avant-garde fashion design inspired by Piazza San Pietro using pleated and woven techniques includes the creative process and the final result produced.

The stages of avant-garde fashion design inspired by Piazza San Pietro began with determining the theme, then continued with concept development, creating a mood board that was used as a visual guide, with design development that focused on form and structure. The pleated technique is implemented to create rhythm and volume, while the weaving technique is used to give texture and visual depth to the garment. As a complement, the architectural elements of Piazza San Pietro, for example, the arches of columns and the structure of the pillars, are incorporated into the fashion design so that a close relationship between the fashion and its source of inspiration can be created.

The end result of this avant-garde fashion design has succeeded in producing clothes that show a monumental and structured character, in accordance with the concept of Piazza San Pietro. The sturdy silhouette of the dress with the application of a large collar shows the arch of the columns, and is complemented by a pleated and woven technique that is arranged to produce a garment with strong and distinctive visual characteristics. The effective implementation of these elements can convey the message conceptually of architecture, while also maintaining the creative and innovative elements that characterize avant-garde fashion. Overall, the compatibility between design techniques and architectural inspiration has been successfully demonstrated in this work, so that it can produce a fashion that not only has beautiful aesthetic value but also contains deep conceptual value.

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