



Visualization of the Shape and Colors of the Zytglogge Tower Clock in Evening Party Attire

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Abstract. The Zytglogge Clock Tower is one of the world's heritages with the unique shape of a clock. This study aims to visualize the shape and color of the Zytglogge into a new evening party attire. This Research and Development (RND) used the ADDIE development model (Analysis, Design, Development, Implementation, and Evaluation). Data were collected using a questionnaire validated by 2 fashion experts. Data were analyzed using quantitative descriptive analysis. All data collected were analyzed using quantitative descriptive analysis techniques. The findings of this research are that it is necessary to add historical elements or background of the idea to add meaning and uniqueness to the outfit, and it is also necessary to pay attention to the materials chosen to realize the design that has been made to get maximum results. Analyzing fashion design principles helps explain the concepts behind evening party dress. Results of evaluation by experts and researchers are beneficial to perfect the party attire.

Keywords: Visualization, Zytglogge, evening party attire, shape, color.

INTRODUCTION

Evening party attire is made with high-quality stitching, decorations, and materials to create elegant and luxurious clothes. The characteristics of party attire cover the silhouette, the material, the color, and the texture of the material (Punami et al., 2023). According to the occasion, party attire is grouped into 3, namely, morning attire, afternoon attire, and evening attire, where each of which has its own characteristics.

Evening party attire is used for gala evening parties which have luxurious and elegant characteristics. The design of the evening attire must be innovative and different from common designs. In this case, the innovation needs to be adjusted to the trend in society. This attire can be used as a form of expression of a person's creativity through the design, color, and shape of clothes in order to produce a new evening attire design.

Creating an evening attire design requires designers to pour a source of ideas into the design. The source of the idea is anything that gives rise to someone's idea to create a new fashion design or something that can stimulate the birth of a new creation (Widarwati, 1996). The source of the idea can be taken from various things such as the development of fashion in the past, the Kingdom era, past events, the surrounding nature, and the existing fashions (Sudirtha and Angendari, 2018). In this study, the author took the source of the idea from a world heritage building, namely the Zytglogge Clock Tower.

The Zytglogge Clock Tower is a medieval building recognized by UNESCO (Essen and Hesslow, 2020) as a world heritage. This was designed and built by Kaspar Brunner in 1527-1530 and has not changed (Walisiejewicz et al., 2022). This building is located in Bern City, Switzerland which is the main building in the city. Since its construction, the building has changed function many times such as a defense tower, prison, guard post and fire station, and a clock

tower. *Zytglogge* (“time bell” in German) features three clock faces and an ancient bell that has been showing the time since 1405 (Walisiewicz et al., 2022).



FIGURE 1. *Zytglogge* clock.

Zytglogge is globally known as one of the oldest active astronomical clocks. Its most prominent element is the clock painted in bright colors and designed to show the journey of the zodiac against the rotation of the earth. The background of the clock is blue representing the day, black to represent night, and gray representing dawn and dusk (Walisiewicz et al., 2022). Besides showing the zodiac signs, this clock also shows 365 days of the year, the phases of the moon, and the times of sunrise and sunset. Twenty-four gold-painted Roman numerals (from I to XII twice) circle the black outer ring of the clock to show the time. This clock does not allow for leap years and its mechanism is manually adjusted annually on February 29th.

In this study, the researcher used the *Zytglogge* clock as a source of ideas for creating a new evening attire design. The elements of this design cover the shape and color of the *Zytglogge*. The top dress uses navy and yellow colors representing the day and night from this clock. The bottom dress is made circular with a decorative textile in the form of numbers at the end of the dress. The decorative textile numbers are made by attaching thread and a rhombus shape using embroidery techniques with satin stitches. These numbers represent the numbers on this clock. This evening party attire is equipped with accessories in the form of the *Zytglogge* clock made using the beading embroidery technique.

The *Zytglogge* clock has a unique shape and is different from the usual clock so this can be visualized into a dress. This study aims to develop skills in designing a new dress, describe the elements and similarities of *Zytglogge* with the clothes produced, describe the use of design principles, and identify the final results in using the shape and color of *Zytglogge* on evening party attire. The results of the development of fashion design in this study can provide ideas for creating other innovative party attires.

METHOD

This study used a Research and Development (R&D) method with the ADDIE development model. This method is perfect for creatively and innovatively developing fashion designs. It is critical to establish a methodology which can capture and explain design knowledge as it is being generated so that design theory can be informed by individual design knowledge applied across disciplines (Lee, JS and Danko, S. 2017). It focuses on developing a source of ideas into a new product, namely visualizing the look of the *Zytglogge* Tower Clock into evening party attire. The ADDIE development model aims to develop a new product or improve an existing product to obtain accountable results (Ariati et al., 2018). This ADDIE model consists of five stages, namely

1. Analysis, analyzing selected idea source, namely the *Zytglogge* Tower Clock and designing a moodboard
2. Design, preparing the design and describing the design principles used
3. Development, determining the materials used according to the selected design
4. Implementation, the product produced will be tested by experts
5. Evaluation, evaluation of the product produced

Data were analyzed using quantitative descriptive analysis techniques to process data obtained from validity tests done by experts using questionnaires. The questionnaire contained assessment indicators, input, and notes on the results of the research. The formula used in calculating the percentage of each subject was based on Tegeh and Kirna (2014) as follows.

$$percentage = \frac{gain\ score}{max\ score} \times 100\%$$

To convey the significance and decision-making process, the researcher used the following provisions:

TABLE 1. Achievement level qualification table.

Achievement Level	Qualification
90%-100%	Excellent
75%-89%	Good
65%-74%	Enough
55%-64%	Less
0%-54%	Very less

RESULT AND DISCUSSION

Analyze

At this stage, the researcher analyzed the characteristics of the *Zytglogge* Tower Clock which was used as the source of ideas for the party attire. The *Zytglogge* consists of several clocks showing the time in 24 hours, day and night, zodiac, and moon phases. The middle of the dark blue clock was called a *planister*, surrounded by a picture of the zodiac. The red clock circle around showed the time of the week. At the very end of this clock, there were Roman numerals 1 to 24 to show the time of day. Based on the results of the analysis, the researcher created a mood board as a reference for creating party attire designs.



FIGURE 2. Moodboard.

Design

Based on the results of the analysis, the researcher created the design of the dress to display the visualization of the *Zytglogge* from its shape and color.



FIGURE 3. Fashion design analysis.

1. Development, determining the materials used according to the selected design.
2. The brooch accessory was made in the shape of *Zytglogge* to further display the visual of *Zytglogge*
3. The upper side of the bottom attire took a decorative gold-colored rhombus-shaped ornament from the *Zytglogge*
4. The lower side of the bottom attire had a circular Roman numeral taking the shape of the tip of *Zytglogge*

Design principles help fashion designers to objectively see things and can be used to organize and formalize design knowledge, as well as a means to adjust the focus and effects of design products (Anggraeni and Indarti, 2022). The design principles used in this party attire design covered:

1. Repetition of the rhombus shape and lines as decorative decoration on the bottom dress.
2. Proportion is the comparison of the size or distance of clothes. In this design, the bottom dress is made longer to touch the floor compared to the shorter top dress.
3. Balance, where this design used symmetrical balance meaning that the clothes look the same from the right, left, front and back.
4. Emphasis, namely the use of brooch accessories to be the center of attention of this attire.

Development

After designing the attire, then in the development stage, the design was realized using soft, dark, shiny, and luxurious materials. The researcher selected red Roberto satin for the bustier. Then, the outside of the top dress used yellow and navy Roberto satin draped in a crisscross shape. The top dress was added with polka dot tulle to give a patterned impression.

The bottom dress used red bridal satin with decorative embellishments by attaching thread and embroidery. The gold-colored rhombus shape was made using an embroidery technique with a flat stitch or satin stitch. A flat stitch is a stitch that is made up and down the same length to cover the entire decorative pattern (Sianturi et al, 2022). The embroidery used gold-colored embroidery thread that matches the color of the thread used for the thread attachment.

Decorative ornaments in the form of elongated lines and Roman numerals were made using the thread-embossing technique. Thread embossing is an embossing using thread materials, made on the surface of the fabric with a lengthwise thread wrapping and using the stabbing technique (Rohmawati, Inna. 2015). The thread embossing was made using gold-colored Chinese rope.

The *Zytglogge* Clock-shaped brooch was made using the beading embroidery technique. Beading Embroidery is the art of decorating beads by stringing beads on fabric using a sewing needle or a special beading needle (Sumardani and Tresna, 2021). After finishing the brooch, a gold chain was added to the bottom of the brooch.



FIGURE 4. Final result evening party attire.

Implementation

The implementation stage was to test the feasibility of the visualization results of the *Zytglogge* Clock Tower on party attire. In this stage, the validation test was carried out by distributing a questionnaire to experts to validate the results. The assessment indicators tested were the suitability of the shape and color of the clothes and the suitability of the clothing to be used at the evening party.

There were 4 indicators used in the validation sheet, namely shape, color, harmony and suitability. Each indicator has assessment points. The contents of the validation sheet in the form of a questionnaire are as follows

TABLE 2. Table of questionnaire assessment indicators.

Assessment Indicator	Assessment Item	Assessment				
		5	4	3	2	1
A. Shape	The suitability of the design form in representing the <i>Zytglogge</i> Clock Tower.					
B. Color	Appropriateness of color in representing <i>Zytglogge</i> Clock Tower					
C. Alignment	Color suitability with the theme of evening party fashion					
	Harmony between the shape and color of the design in representing <i>Zytglogge</i> Clock Tower					
D. Compatibility	Appropriateness of clothing for evening party					

The validation test involved 2 fashion experts, namely Feny Puspitasari. S.Pd., M.Ds. and Mandhe Sekar Nurindah, M.Ds, lecturers in Fashion Education at the Universitas Pendidikan Indonesia. Data were then analyzed using:

$$\text{Expert percentage 1} = \frac{23}{25} \times 100\% = 92\%$$

$$\text{Expert percentage 2} = \frac{20}{25} \times 100\% = 80\%$$

$$\text{Average Percentage} = \frac{172}{2} = 86\%$$

Based on the results of the analysis, it can be concluded that the Visualization of the Shape and Color of the *Zytglogge* Clock Tower on Evening Party Attire has a good qualification with an achievement level of 86%.

Evaluation

In this study, the evaluation aims to improve the results of the Visualization of the *Zytglogge* Clock Tower on this evening party attire. The researcher used the input provided by fashion experts as the basis for improvement. In the visualization of the shape and color of this attire, the shape and color are good but it will be better to add another impression from the background or history of *Zytglogge*. Adding historical aspects can provide a deeper understanding of the attire, not only limited to the original shape of *Zytglogge*. Besides, it is better to determine the evening party event suitable for using the dress as evening parties have many types like weddings, awards, and others.

The second expert gave a "Sufficient" rating on the color harmony assessment indicator as all attires use colors adopted from the source of the idea. In this case, the researcher did not use color theory in creating the attire so the colors used are not in harmony or clash because they all only follow the source of the idea. Indeed, the disharmony does not make this dress a bad dress, but the colors are not in harmony as they are only adopted from the *Zytglogge* Clock Tower.

Besides the shape and color, the technique of making brooch accessories needs to be considered to match the design and not diverge from the selected source of ideas. Brooches are made clearer so that the shape of *Zytglogge* is visible. In terms of brooch materials, choosing the right material such as flannel must be considered, particularly using non-hairy flannel.

CONCLUSION

Based on the results of the analysis, it can be concluded that the produced attire has a good qualification with an achievement of 86%. Some aspects need to be re-evaluated to create better clothes such as by adding historical elements of the source of ideas to have a deeper meaning and visual. Besides, the selection of materials and decorative decoration techniques also need to be considered for the desired results.

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