

An Interpretation of the Architecture of the Mohammed V Mausoleum in Avant-Garde Fashion Through Fabric Manipulation Techniques

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ABSTRACT

This study interprets the architecture of the Mohammed V Mausoleum into avant-garde fashion by applying a combination of fabric manipulation techniques, namely applique, cording, and tucking. The research employed a practice-based design research approach using the Double Diamond model, consisting of Discover, Define, Develop, and Deliver stages. Data were collected through visual observation, design documentation, and expert judgment involving three fashion design experts using a Guttman scale instrument. The data were analyzed using descriptive quantitative analysis through percentage calculations and supported by interpretative visual analysis. The results show that architectural elements of the Mohammed V Mausoleum, particularly zellij geometric motifs, Moorish arches, wall ornaments, and monumental forms, were successfully translated into a three-piece avant-garde garment consisting of a hooded cape, bustier, and flared pants. Expert evaluation indicated that most indicators achieved 100%, while several aspects related to cording structure and final architectural embodiment achieved 66.7%. The applique and tucking techniques were effective in representing geometric ornamentation and arch structures, whereas the cording technique requires further refinement in line composition and motif proportion. This study demonstrates that Islamic architecture can serve as a relevant source of creative innovation in culturally inspired avant-garde fashion and fabric manipulation exploration.

Keywords: Avant-garde fashion; Islamic architectural interpretation; Mohammed V Mausoleum; fabric manipulation; fashion design.

INTRODUCTION

The fashion industry continues to evolve through the exploration of sources of inspiration drawn from culture, history, and architecture. Such exploration allows fashion works to present not only aesthetic value, but also conceptual depth. One fashion approach that provides broad space for experimentation is avant-garde fashion. Avant-garde fashion is characterized by unconventional form, conceptual exploration, visual experimentation, and the challenge of established garment construction norms (Evans, 2003; Reddy-Best & Burns, 2013). Designers such as Martin Margiela, Rei Kawakubo, Yohji Yamamoto, and Issey Miyake have demonstrated that unconventional silhouettes, material exploration, deconstruction, and structural

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innovation can become important strategies in developing conceptual fashion forms (Reddy-Best & Burns, 2013).

Islamic architecture offers rich potential as a source of fashion inspiration because it contains visual complexity, historical meaning, and symbolic value. The Mohammed V Mausoleum in Rabat, Morocco, was selected as the main source of inspiration in this study because it presents distinctive architectural characteristics, including zellij ceramic motifs, Moorish arches, geometric ornamentation, and monumental spatial forms. These elements represent the visual identity of Moroccan Islamic architecture and can be interpreted into textile and garment design through surface treatment, three-dimensional form exploration, and architectural design thinking (Bloom & Blair, 2018; El-Mahdy, 2023; Kamal, 2020; Williams, 2024).

Fabric manipulation techniques provide a relevant medium for translating architectural elements into fashion. Applique can be used to apply cut fabric shapes onto a base fabric to create ornamental patterns, while cording can produce raised lines and structural textures on the garment surface (Davis, 2014; Singer, 2010). Tucking creates folded structures that generate rhythm, volume, and dimension in textile surfaces (Denzel, 2018; Wolff, 1996). Recent fashion design education research also emphasizes that fabric manipulation can help designers reinvent basic fabrics, express design concepts, and produce innovative fashion outcomes (Aiman, 2024; Burns, 2022). Through these techniques, architectural motifs and forms can be transformed into visual and tactile elements in fashion design.

Previous studies and design practices have explored architecture, cultural ornamentation, visual sources, and textile manipulation as sources of fashion design development (Burns, 2022; El-Mahdy, 2023; Omwami et al., 2020). However, studies specifically interpreting the architecture of the Mohammed V Mausoleum into avant-garde fashion through a structured combination of applique, cording, and tucking using the Double Diamond model remain limited. Therefore, this study aims to interpret the architecture of the Mohammed V Mausoleum into avant-garde fashion, apply combined fabric manipulation techniques in the design realization, and evaluate the suitability of the final garment with the intended design concept. This research is expected to contribute to culturally inspired fashion design and enrich references for fabric manipulation in conceptual fashion.

METHOD

Research approach and design model

This study used a practice-based design research approach. Practice-based research was selected because the study focused on the creation of a fashion product as a form of knowledge development through creative practice (Candy & Edmonds, 2018). The design process followed the Double Diamond model, which consists of four stages: Discover, Define, Develop, and Deliver (Indarti, 2020). This model was considered appropriate because it enables a systematic design process from exploration and concept formulation to experimentation, product realization, and evaluation.

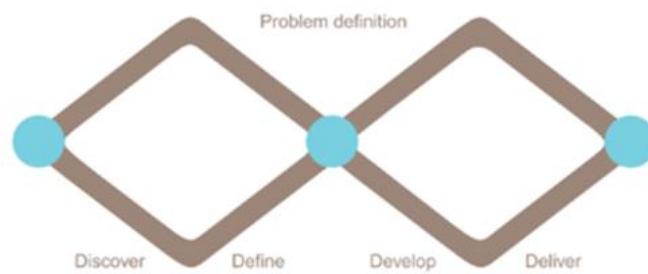


Figure 1. Double Diamond model.

Research object and design focus

The research object was an avant-garde fashion design inspired by the architecture of the Mohammed V Mausoleum in Rabat, Morocco. The design focused on three architectural elements: zellij ceramic motifs, wall ornament patterns, and Moorish arch structures. These visual elements were interpreted through three fabric manipulation techniques: applique, cording, and tucking.

Data collection techniques

Data were collected through visual observation, literature study, design documentation, and expert judgment. Visual observation was conducted by examining the architectural characteristics of the Mohammed V Mausoleum and translating them into a moodboard, design sketches, fabric manipulation prototypes, and final garment realization. This process followed the idea that visual sources can stimulate apparel design ideation through adaptation, simplification, and associative interpretation (Omwami et al., 2020). Expert judgment was conducted by three fashion design experts to evaluate the suitability of the final garment with the design concept.

Instrument and assessment indicators

The evaluation instrument used a Guttman scale with dichotomous response options of "Yes" and "No". A "Yes" response was scored 1, while a "No" response was scored 0 (Sugiyono, 2018). The instrument consisted of 14 items divided into three aspects: architectural interpretation, application of fabric manipulation techniques, and avant-garde visual characteristics of the final garment.

Data analysis techniques

The expert judgment data were analyzed using descriptive quantitative analysis through percentage calculations. The obtained score was compared with the maximum possible score and multiplied by 100%. The quantitative results were supported by descriptive interpretative analysis to explain the relationship between architectural inspiration, fabric manipulation techniques, and the visual outcomes of the garment.

RESULTS AND DISCUSSION

Discover: Architectural inspiration and visual exploration

The Discover stage began with the identification of the Mohammed V Mausoleum as the main source of inspiration. The building was selected because it contains strong visual elements, including zellij geometric motifs, arches, wall ornaments, and monumental architectural forms. These characteristics were interpreted as potential sources for surface pattern, garment structure, and silhouette exploration. This stage also aligns

with architectural-fashion research that positions geometry, structure, and material transformation as shared concerns between architectural and fashion design practices (El-Mahdy, 2023).

Define: Concept formulation and moodboard development

The Define stage focused on organizing visual references into a moodboard. The moodboard combined architectural references, zellij mosaic patterns, arch forms, color palettes, silhouettes, and fabric manipulation references. It functioned as a visual guide for maintaining consistency between the architectural inspiration and the intended avant-garde fashion concept.



Figure 2. Moodboard.

Develop: Design development and technique experimentation

The Develop stage included basic design exploration, design variation, final design selection, and fabric manipulation experiments. The initial design alternatives consisted of garments with mermaid skirt and pants silhouettes. These alternatives were further developed into five design variations, each applying different placements of applique, cording, and tucking techniques.





Figure 3. Design development.



Figure 4. Selected and final design.

The selected design was refined into a three-piece ensemble consisting of a hooded cape, bustier, and flared pants. The applique technique was developed from selected zellij mosaic forms and arranged repetitively to create geometric ornamentation. The cording technique was explored to represent the wall ornament lines of the mausoleum. The tucking technique was applied to create rhythmic folded forms inspired by Moorish arches and to strengthen the volume and silhouette of the garment. This exploration supports the view that fabric manipulation can operate as a creative method for transforming textile surfaces into concept-driven fashion forms (Burns, 2022).



Figure 5. Applique technique exploration.

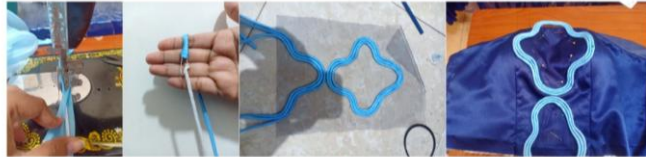


Figure 6. Cording technique exploration.



Figure 7. Tucking technique exploration.

Deliver: Final garment realization

The Deliver stage resulted in the final avant-garde garment. The final design combined surface ornamentation, structural texture, and dramatic silhouette to represent the architectural inspiration. The garment was presented at the 4th Annual Show Vocational Fashion Design event with the theme "Xynthesis" on October 11, 2025, at the Convention Hall of Tunjungan Plaza, Surabaya.



Figure 8. Final garment result.

Expert judgment results

The evaluation was conducted by three fashion design experts using 14 indicators. The results are summarized in Table 1.

Table 1. Expert judgment results

Indicator	Total	Percentage
A. Architectural interpretation		
The process of incorporating the architecture of the Mohammed V Mausoleum into avant-garde fashion is clearly illustrated.	3	100%

The architectural inspiration was successfully transformed into a unique design consistent with the concept.	3	100%
B. Application of fabric manipulation techniques		
The applique technique depicts zellij mosaic patterns.	3	100%
The cording technique creates lines resembling wall ornament motifs of the Mohammed V Mausoleum.	2	66.7%
The tucking technique reflects the curved form of the mausoleum architecture.	3	100%
The applique technique, combined with other fabric manipulation techniques, successfully interprets architectural motifs.	3	100%
The cording technique, combined with other fabric manipulation techniques, contributes to architectural motif interpretation.	3	100%
The tucking technique, combined with other fabric manipulation techniques, successfully interprets architectural motifs.	2	66.7%
C. Final avant-garde garment		
The avant-garde concept is evident in the final garment.	3	100%
The combination of fabric manipulation techniques enhances the avant-garde appearance.	3	100%
The proportions and composition are balanced and consistent with avant-garde aesthetics.	3	100%
The final collection creates an artistic impression aligned with the architectural inspiration.	3	100%
The selected techniques produce avant-garde fashion with a strong conceptual foundation.	3	100%
The final garment embodies the architectural inspiration of the Mohammed V Mausoleum.	2	66.7%

Discussion

The evaluation results indicate that the architectural interpretation aspect achieved 100% across both indicators. This shows that the zellij motifs, arch structures, and monumental impression of the Mohammed V Mausoleum were clearly represented in the design. This finding supports the view that avant-garde fashion can function as a medium for conceptual and artistic transformation rather than merely as wearable clothing (Evans, 2003; Reddy-Best & Burns, 2013). In this study, architectural inspiration was not directly copied into garment form, but was interpreted through the transformation of visual elements into textile surfaces, silhouettes, and decorative structures. This process demonstrates that architecture can serve as a conceptual framework for fashion design, especially when the selected architectural object contains strong visual identity, cultural meaning, and ornamental complexity.

In the fabric manipulation aspect, applique and tucking were the most successful techniques. Applique effectively represented the repetitive geometric character of zellij motifs through layered fabric forms, while tucking created rhythm and volume associated with Moorish arches. These findings are consistent with the function of fabric manipulation as a means of producing surface dimension, structural textile effects, and concept-based innovation in fashion design (Aiman, 2024; Burns, 2022; Denzel, 2018; Singer, 2010; Wolf, 1996). The success of applique lies in its ability to translate geometric ornaments into visible and recognizable surface patterns. Meanwhile, tucking contributed to the formation of dimensional structure, making the garment appear more dynamic and architectural. Therefore, both techniques supported not only the decorative aspect but also the conceptual expression of the design.

The cording technique received a lower score in one indicator, with 66.7%. This indicates that the line structure and motif proportion still need refinement to more strongly resemble the wall ornament patterns of the mausoleum. In the context of avant-garde fashion, such refinement is important because visual boldness, conceptual clarity, and structural experimentation are central to the formation of unconventional fashion aesthetics (Evans, 2003). The lower score suggests that cording has potential as a structural and decorative technique, but its application requires more precise control of scale, placement, and line rhythm. If the cording lines are too thin, too sparse, or not proportionally arranged, the intended architectural reference may become less visible. Thus, future design development should include more intensive experimentation with cord thickness, motif repetition, and placement on the garment surface.

The final garment was generally considered successful in representing the avant-garde concept through dramatic silhouette, volume, surface texture, and architectural ornamentation. However, the final embodiment of architectural inspiration also received 66.7% in one indicator, suggesting that further exploration of three-dimensional structure, proportion, and motif integration is needed. This indicates that architecture-based fashion design still offers wide opportunities for technical and conceptual development. The result shows that the interpretation of architectural inspiration into fashion requires balance between visual similarity, technical feasibility, and garment aesthetics. If the architectural elements are applied too literally, the garment may lose its fashion value; however, if they are abstracted too far, the source of inspiration may become less recognizable.

Overall, the findings demonstrate that the combination of applique, cording, and tucking can support the transformation of Islamic architectural elements into avant-garde fashion. The design process also shows the relevance of the Double Diamond model in guiding creative exploration from visual research to final product evaluation. Through the stages of Discover, Define, Develop, and Deliver, the design concept could be developed systematically and evaluated based on expert judgment. This confirms that practice-based design research can generate both creative outcomes and design knowledge, particularly in the context of culturally inspired fashion design. The study also highlights that fabric manipulation is not only a technical embellishment method but also a medium for translating cultural, architectural, and symbolic values into contemporary fashion works.

CONCLUSION

This study concludes that the architecture of the Mohammed V Mausoleum can be interpreted into avant-garde fashion through a structured practice-based design research process using the Double Diamond model. The final design successfully translated the main visual characteristics of the mausoleum, including zellij geometric motifs, Moorish arches, wall ornamentation, and monumental architectural forms, into a three-piece avant-garde garment consisting of a hooded cape, bustier, and flared pants. Among the applied fabric manipulation techniques, applique was effective in representing geometric mosaic patterns, while tucking successfully created rhythmic volume inspired by architectural arches. Cording contributed to the garment's surface structure, but it still requires further refinement in motif proportion, line placement, and visual integration.

The expert judgment results indicate that the design outcome was generally successful, as most assessment indicators achieved 100%, although several indicators related to the cording technique and the overall embodiment of architectural inspiration achieved 66.7%. These findings show that further experimentation is needed to strengthen the clarity of architectural interpretation through more precise structural and surface manipulation. This study contributes to fashion design by demonstrating that Islamic

architecture can serve as a source of creative innovation for culturally inspired avant-garde fashion, while also providing a reference for fashion design education in exploring fabric manipulation techniques as a medium for translating architectural forms into contemporary fashion.

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