

IMARAH ISLAMIAH: THE IMPLIMENTATION IN MODERN JEWELLERY DESIGN

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Abstract: *The Arabic phrase 'Imarah Islamiah' refers to Islamic architecture. This study primarily focuses on the seven principles of Islamic architecture. This research was developed based on a few problem statements. First, the lack of awareness and responsibility as Muslims in the creative industry especially in the product design field. The next problem is inadequate knowledge among young pioneer designers on the application of elements in Islamic art and architecture. The researchers have aimed at three objectives, first is to make the elements of Islamic architecture as a reference in producing jewellery designs. Second, to produce jewellery design that complies with the Islamic Architecture element and principles and the third objective is to preserve the Islamic lifestyle as the continuous design fundamentals. Islamic architectural components and principles have been integrated into modern product design through the enhancement of competitive design and the exploration of a number of alternative designs. Modern jewellery is influenced by Islamic architectural details and ideas with a focus on design aesthetics and contemporary demands. In order to create the product design, the exploration process is employed, which involves making personal observations on relevant study topics, such as related technologies, and collecting secondary data. The methodology includes aesthetic, usability, and technological design elements in the percentage. In order to properly harness the potential of Islamic architectural features in product design, the discoveries that suggest optimal design are crucial. The ramifications of the findings were explored in relation to the focus on product design criteria 'Imarah Islamiah' which was tied to the title. This study has found that the structural form of the 'Muqarnas' one of the most attractive Islamic architectural ornaments, may be developed into a wide range of competitive product designs. Additionally, Islamic architectural features have been well-known for centuries and can be employed as the trademark of modern Malaysian product design.*

Keywords: *Architecture; Islamic; Modern; Design; Jewellery*

Introduction

Islamic architecture is known in Arabic as ‘Imarah Islamiah’. Islamic architecture is a style of architecture that draws its inspiration primarily from Islam and is based on Islamic functions (Ettinghausen, 2001).

This study examines how Islamic architectural principles and elements integrated with jewellery design might continue improving producing competitive jewellery designs. This research was conducted with the intention of using Islamic architectural principles as a model for creating jewellery designs. Furthermore, it is to establish jewellery that adheres to the elements and principle of Islamic architecture and the third objective is to preserve the Islamic lifestyle as the continuous innovative design fundamentals.

The integration of modern jewellery design with Islamic architecture is a fascinating concept that brings together two seemingly different worlds. Islamic architecture is known for its intricate geometric patterns and ornate designs, often featuring repetitive shapes and patterns that are inspired by the beauty of nature (Mujani, 2017). Similarly, modern jewellery design often incorporates clean lines and minimalistic shapes, focusing on intricate details and the beauty of the materials used (Noor Adila Mohd Rajili, 2015).

By combining these two styles, modern jewellery designers are able to create pieces that have a connection to Islamic heritage and culture, while still maintaining a modern aesthetic. For example, a modern pendant necklace could feature the intricate geometric patterns found in Islamic architecture, but with a sleek and streamlined design that is appropriate for contemporary fashion.

This integration not only produces visually stunning pieces but also has the potential to evoke a sense of tradition and cultural significance. For those who have a connection to Islamic culture, wearing a piece of jewellery that incorporates elements of Islamic architecture can serve as a symbol of their heritage and personal history (Mujani, 2017).

The jewellery design was produced primarily based on the seven principles of Islamic Architecture as emphasised by Nisreen Moustafa. The seven principles are Tawhid (Unity and Uniquity of Allah), Ihtiram (Respect), Ikhlas (Sincerity), Ilm (Knowledge), Iqtisad (Balance), Haya’ (Modesty) and Dikr (Remembrance) (Moustafa, 2008).

Elements and principles of Islamic architecture have been used for a long time in Malaysia in the construction of mosques or buildings intended for religious activities. It shows that Islamic architecture is still relevant to be continued and adapted to various types of design trends (A. A. Aziz, 2016).

Literature Review

Jewellery and body ornaments are available in a variety of categories. They include jewellery such as necklaces, bracelets, brooches, rings, and more (Noor Adila Mohd Rajili, 2015). The researcher has focused the design on one type of jewellery only, which is bib necklaces.

While there is no doubt that Islamic architecture has been modified and influenced by local culture, it is also true that some ornaments or artistic designs may lack specific meaning and serve purely an aesthetic purpose (Shafiq, 2014).

A survey has been conducted among practitioners and students majoring in jewellery to choose a subject matter that is related to Islamic Architecture and at the same time contains an aesthetic character that is suitable to be developed into jewellery products. The survey of the potential

subject matter is among minaret (mosque tower), muqarnas, the pointed arc of Islamic Architecture and 'Minbar'.

The muqarnas has been chosen to be developed more into necklace designs. Muqarnas is a type of decorative element used in Islamic architecture and is characterized by a series of repeating, stylized, three-dimensional designs that form a sort of honeycomb or corbelled structure. The design typically consists of a series of downward-tapering, sculpted blocks that project from a flat surface, creating a series of curved and interlocking forms (Sakkal, 1981). Muqarnas can be found decorating the interiors and exteriors of buildings such as mosques, palaces, and tombs are often used to embellish arches, domes, and vaults (Efendioğlu, 2021). The design is thought to have originated in Persia in the 10th century and has since become a hallmark of Islamic architecture and a symbol of the rich history and cultural heritage of the Islamic world (Sakkal, 1981).



Figure 1: Muqarnas in the ‘iwan’ entrance to the Shah Mosque in Isfahan,

The intricate and ornate nature of muqarnas makes them a great source of inspiration for jewellery designers, and necklaces incorporating elements of the design can be beautiful and unique. The necklace could feature pendants or charms in the shape of individual muqarnas blocks, or it could incorporate a repeating pattern inspired by the interlocking forms of the muqarnas design. The design of the necklace starts from the centre which is the main attraction and then expands to the left and right to make it a necklace.

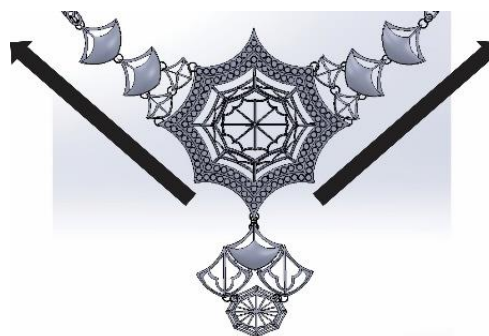


Figure 2: Design arrangement

The main part of the necklace, including the left and right parts, is connected with a Cuban chain and the chain ends with a box clasp. The combination of several parts of jewellery into one complete product symbolizes unity (Tawhid) in the design.

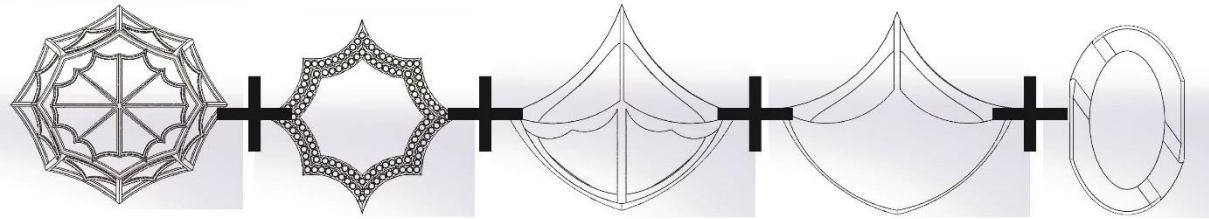


Figure 3: Shapes combination

The selected design is based on the basic part of the 'Muqarnas' structure. Based on that simplified structure, that form is duplicated and reduced in size to form a centred arrangement to become one spectacular and tremendous bib necklace design.

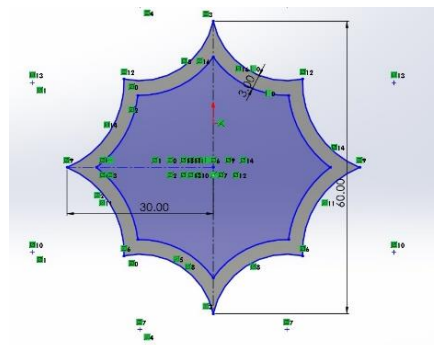


Figure 4: Simplified muqarnas shape

This combination of many shapes shows the unity (Tawhid) in the design. The necklace is made up of layers that are all the same shape but have been modified. Each layer is linked to the internal structure, potentially leading to the design's inner beauty characteristics. This inner beauty characteristic indicates the modesty (Haya') in the design. The middle part of the jewellery design emphasizes the element of balance (Iqtisad) during the ideation process. It is designed symmetrically and at the same time focuses on the unique features of the design. Due to the respect for Islamic calligraphy, there is no Islamic calligraphy integration in the proposed design. Following this respect-related (Ihtiram) design feature allows the jewellery to be sold to non-Muslims without worrying about issues of religious exploitation.

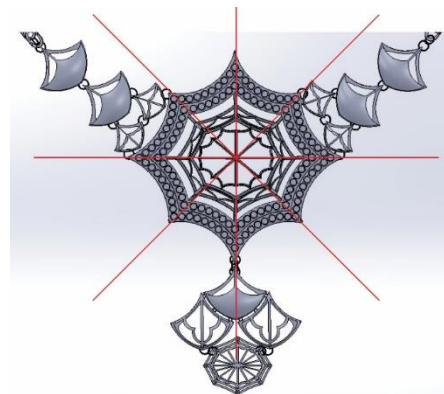


Figure 5: Symmetrical in design

Methodology

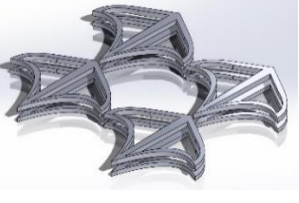

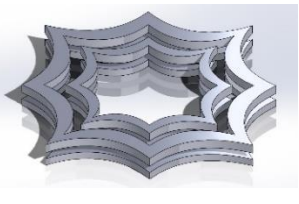
The exploration method in modern jewellery design refers to the process of using various variables, for example, techniques, materials and experimenting to create unique jewellery pieces (Smithers, 1992). This method often involves a designer trying out new ideas, taking risks, and pushing the boundaries of traditional jewellery-making techniques.

The exploration method can involve the use of a wide range of materials, including precious metals, gems, and unconventional materials such as wood, plastic, and found objects. The designer may also experiment with different techniques such as soldering, casting, forging, and enamelling. In addition to materials and techniques, the exploration method may also involve a focus on innovative design concepts, such as incorporating elements of nature, incorporating technological advancements, or exploring new colour combinations. Overall, the exploration method in modern jewellery design emphasizes a creative and open-minded approach, allowing designers to develop new and unique designs that push the boundaries of traditional jewellery making.

In order to create the jewellery design, the exploration methods involve making personal observations in the relevant research field, using associated technology, and gathering secondary data was applied. Personal observations by the researcher were made in and around Taman Tamadun Islam, Kuala Terengganu. The creation of jewellery designs benefits from the scrutiny of accurate replicas of Islamic architecture. The design process is carried out with the assistance of CorelDraw software. The software enables the creation of repetitive, symmetrical, and detailed arrangements more quickly and easily.

To obtain the best designs, the highest percentage survey was conducted among jewellery designers. Percentages for each proposed design's aesthetic quality, usability, and technical proficiency were tallied. Aesthetic criteria for jewellery can be subjective and vary based on personal preference, cultural background, and historical context. However, some common elements that are often considered when evaluating jewellery design and style include balance, proportion, symmetry, texture and form. Usability criteria for jewellery refer to the functional aspects of jewellery design and how well it meets the needs and expectations of the wearer. Some common usability criteria for jewellery include comfort, durability, versatility and style. These are just a few of the many usability criteria that can be considered when evaluating jewellery. Ultimately, the most usable jewellery is that which meets the individual needs and preferences of the wearer. Technical criteria for jewellery refer to the technical aspects of jewellery design and manufacture, and how well they contribute to the overall quality and functionality of the jewellery. Some common technical criteria for jewellery include material, craftsmanship, closure mechanism, design and strength strength (Noor Adila Mohd Rajili, 2015). These are just a few of the many technical criteria that can be considered when evaluating jewellery. A combination of technical and aesthetic criteria should be used to ensure that jewellery is both visually appealing and functional. The highest percentage average will advance to the next process, 3-dimensional prototype production.

Table 1: Survey on design criteria

No.	Design	Design Criteria			Total 100%
		Aesthetic 50%	Usability 30%	Technical 20%	
1		35%	18%	14%	67%
2		32%	17%	14%	63%
3		36%	20%	15%	71%

A 3-dimensional prototype is then constructed using the Solidworks software from the basic 2-dimensional design. SolidWorks is a computer-aided design (CAD) software application used for 3D design, simulation, visualization, and engineering. It was developed by Dassault Systèmes and is widely used in the manufacturing and product design industries.

SolidWorks offers a wide range of tools and features for designing, modeling, and analyzing mechanical components and products. It provides a 3D modelling environment that allows designers to create and edit parts and assemblies, as well as perform simulations to test the behaviour of their designs under various conditions.

Some of the key features of SolidWorks include providing a wide range of tools for creating and editing 3D models, including basic solid modeling, surface model and sheet metal design (Bethune, 2019).

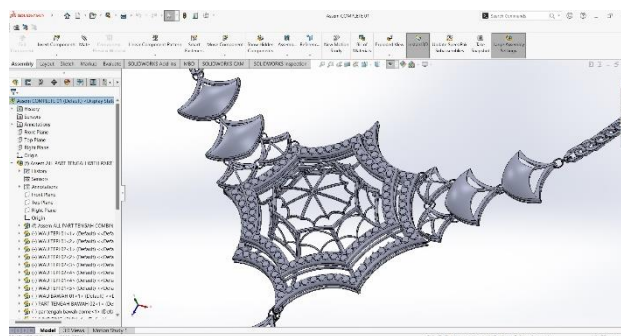


Figure 6: 3-dimensional software (Solidworks)

It is critical to use the findings to reveal appropriate design in order to fully utilise the potential of Islamic architecture elements in product design.

The implications of the findings were discussed in order to link them to the necklace design that was relevant to the focused research. After the 3-dimensional design is produced using computer software, the design is rendered with high-resolution setting to present the effectiveness of muqarnas and Islamic architecture on the influence of beautiful jewellery designs.



Figure 7: Necklace inspired by Islamic Architecture



Figure 8: Necklace inspired by Islamic Architecture (close-up)

Detailed jewellery designs often incorporate stone settings to enhance their visual appeal. Stone settings can add texture, colour, and dimension to a piece of jewellery, and can also provide a focal point for the design. In this Islamic-inspired jewellery, gemstones commonly used include turquoise, onyx, and carnelian, among others. The gemstones may be cut in a variety of shapes and sizes to complement the overall design of the piece. Additionally, stones may be set in intricate patterns, such as in a floral or geometric motif, to reflect the influences of Islamic art and architecture. Overall, stone settings are an important element in the creation of detailed jewellery designs, and can add significant value and beauty to a piece of jewellery. Following that, the researcher applied a massive number of gemstones to the design.

Commercialization Potential, Impact Towards The Socio-Economic and Humanity

The commercialization potential of jewellery inspired by Islamic architecture can be significant, as there is a growing demand for jewellery that combines cultural heritage with modern design. This demand can be driven by a variety of factors, including increased awareness of Islamic art and culture, a desire for unique and meaningful jewellery, and a growing interest in sustainable and ethically-made products (Eric Broug, 2018).

In terms of its impact on socioeconomics, the commercialization of jewellery inspired by Islamic architecture can have a positive effect by providing employment and income opportunities for jewellery makers, artisans, and designers. This can have a ripple effect in local communities, supporting economic growth and development. Additionally, the promotion of cultural heritage through jewellery can raise awareness and appreciation of Islamic art and architecture, and can help to preserve cultural traditions for future generations.

In terms of its impact on humanity, jewellery inspired by Islamic architecture can serve as a symbol of cultural identity and pride, connecting people with their heritage and helping to build a sense of community (Simms, 2012). Additionally, by incorporating principles of balance, symmetry, and proportion into jewellery design, modern jewellery can help to promote mindfulness and a sense of well-being for those who wear it (Ghyka, 1977).

Overall, the commercialization of jewellery inspired by Islamic architecture has the potential to bring economic, cultural, and social benefits, making it a valuable and meaningful contribution to the world of jewellery design.

Novelty

Novelty refers to the quality of being new, original, or different from what has been seen before. In the context of jewellery design, novelty refers to the creation of new and innovative styles, techniques, and materials that bring fresh and unique perspectives to the world of jewellery (Celce-Murcia, 2002).

Novelty is an important factor in the commercialization of jewellery because it appeals to customers who are looking for something different and eye-catching. By incorporating new materials, techniques, and design elements, jewellery designers can create pieces that stand out from the crowd and capture the attention of potential buyers. At the same time, it's important to balance novelty with practicality and wearability, as jewellery that is too avant-garde may not be suitable for everyday wear or may not appeal to a wide range of customers. As a result, the most successful jewellery designs often combine novelty with traditional elements and techniques that are well-established in the industry. The advantage of Islamic architecture, or

anything based on Islam, is its ability to evolve and remain suitable for use across different ages and time periods (Anisah Bahyah Hj Ahmad, 2017).

The necklace inspired by Islamic architecture and its ornamental element called muqarnas is a unique and creative way to bring together traditional cultural heritage and modern design. Muqarnas, which are highly decorative elements found in Islamic architecture, were used in innovative ways in jewellery design to create pieces that are both visually stunning and meaningful.

The researcher has incorporated muqarnas into jewellery in a variety of ways, such as using them as the central design element in a pendant and repeating pattern in a piece of jewellery. Additionally, modern software and techniques were used to create muqarnas-inspired jewellery that is both stylish and wearable. By incorporating muqarnas into jewellery design, designers created pieces that are not only visually stunning but also reflect Islamic cultural heritage and traditions. These pieces have the potential to appeal to a wide range of customers, from those looking for unique and meaningful jewellery to those who are interested in cultural heritage and sustainable fashion.

The structural form in the produced necklace design typically consists of a series of nested, three-dimensional shapes that create a complex and visually striking pattern.

In that structural design, muqarnas form was used to create pieces that are not only aesthetically pleasing but also structurally sound and durable. With the assistance of 2-Dimension and 3-Dimension software, the precise and intricate muqarnas designs that are integrated into the structural elements of the jewellery are easily produced.

Conclusion

In conclusion, the implementation of Ijarah Islamiah in modern jewellery design is a unique and innovative approach that combines traditional cultural heritage with modern design. By incorporating muqarnas into jewellery design, designers can create pieces that are not only visually stunning but also meaningful and reflective of cultural heritage.

There are several ways in which Ijarah Islamiah can be incorporated into jewellery design, including the use of muqarnas as a central design element, as a repeating pattern, or as the structural element of the piece. Additionally, modern materials and techniques, such as 3D printing, can be used to create precise and intricate muqarnas designs that are integrated into the jewellery.

This approach to jewellery design has the potential to appeal to a wide range of customers, from those looking for unique and meaningful jewellery to those who are interested in cultural heritage and sustainable fashion. Overall, Ijarah Islamiah represents an exciting and innovative way to bring together traditional cultural heritage and modern design in the world of jewellery.

The structural forms of muqarnas, one of the most beautiful architectural ornaments, can be widely developed into dynamic product design. Malaysian product designers will be recognised not only as ordinary designers but also as significant upside designers in a wide range of product designs. Islamic architecture incorporates many elements that can be consolidated into product design, such as unity, balance, remembrance, knowledge pursuit, modesty, sincerity, and respect. Based on these elements, the progression of 'Ijarah Islamiah' (Islamic architecture)

can also be applied in the design of furniture, packaging, apparel, textile design, advertising, jewellery design, and many other fields.

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