

# THE GEOMETRICAL SHAPE ON MEN'S KURTA DESIGN

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**Abstract:** *Kurta is a loose-fitting collarless shirt or tunic worn in many regions of South Asia. Originated in India, the kurta has evolved stylistically over the countries, especially in South Asia, as a garment for everyday wear as formal occasion. As kurta catches the interest of many people, this paper is going to reveal a few geometrical shapes on men's kurta design. The sole designer of UiTM has put into ideas different geometrical designs on men's kurta. The shapes are arranged in tessellation to make up beautiful designs. This design can be analyzed through the lens of ethnomathematics comprising of observation, interview, and analysis. Future research can be made upon a few more insightful designs to attract local and foreign interests on kurta.*

**Keywords:** *Kurta, Geometrical shape*

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## Introduction

Kurta originated in India are worn mostly in India, Pakistan, Bangladesh, Sri Lanka and Nepal. This dress has gained a reputation as an Indian dress. As time passed by kurta became a new evolution in the fashion of Asian people especially Malaysia. This is because Malaysia, located north of equator where the climate is equatorial with an even temperature throughout the year hot and humid. The average annual high temperature is 27 degrees Celsius with a temperature of 1 to 3 degree Celsius (Laman Web Rasmi Jabatan Meteorologi Malaysia, n.d.).

The hot and humid climate of Malaysia caused Malaysians to look for clothes made from comfortable fabrics such as cotton. Malays usually used Baju Melayu (Malay Clothes) for praying on Friday or on Eid Al Fitr or Hajj Eid. However Baju melayu (malay clothes) is now less of a consumer choice because of its relatively expensive price for the groups of M40 and B40. The lowest price of Baju Melayu reaches up to rm 120 per set. When they try to find a lower cost, it makes them uneasy to wear because of the materials themselves.

The color of Baju Melayu is with a bright tone and the design itself together with Kain Samping (Side Clothes) makes it difficult for those who wanted to go to the toilet. The design of the pocket on the chest of Baju Melayu (Malay Clothes) will fall down or flop around if it is used

for a long time (Sidek, 2022). The uneasiness of wearing Baju Melayu makes the consumers to switch on choosing kurta as a piece of leisure clothes on the or going to the mosque.

The kurta made of cotton fabric is good for this climate. the price of a piece of kurta is only RM 30 to RM 50 only which is affordable for the lower income group. the colors of kurta is more towards natural colors loved by generation nowadays the design of the kurta itself with the zippered pocket is for the purpose of keeping small things inside (Sidek, 2022).

There are many variations of kurta and different ways to style it. Casual kurta is everyday wear. There are also modern contemporary variations in whieverydays printed or woven in the form of checkered and striped or in a single color or in vibrant colors, bright colors and high luster fabrics such as silk and cotton. Shopping malls and online businesses are racing to promote variations of kurta designs to attract people to style them on Eid.

Since kurta is the choice of many people to be styled, textile designers from Uitm Kelantan got the idea to innovate geometric shapes on kurta to make more choices for kurtas lovers. The designer chooses the geometric shapes on kurta design innovated by his inspiration that there exists geometrical shape on the stich patterns such as squares, rectangle, triangle and semi circle.

### Literature Review

Kurta, originating from the Urdu and Persian words “Kurtah” meaning a loose-fitting collarless shirt (Kurta, 2024), made up from plain cotton fabric has emerged as an attire of antiquity (Stevenson, 2013). The rich history of this ancient garment stretches over millennia (Shukla & Glassie, 2008). Kushana and Parthians brought stitched clothes like Kurta, Salwar, Topi and etc. to India and extremely popular in the Gupta period (Disha Bijolia, 2023). Traditional attire such as kurta and flower garlands are part of Indian culture and have nothing to do with Hindu religion.

The traditional combination of kurta and churidar or palazzo is immensely popular in India as it reflects the culture of the country (Disha Bijolia, 2023). There are several types of kurtas that are different from each other, for example the Bhupali kurta which was worn by Sultan Jehan in 1901 (Khaire, 2018). Few other types of kurtas are Dogri Kurta, Delhi Kurta, Punjabi Phulkari and Luckhowi Kurta (Alkazi, 1996). The passage of time is progressing nowadays has started to have an impact on the use among Malay community of Malaysia, where young Malay children start wearing kurtas on the morning of Hari Raya.

In general, there are many variations of kurta by styling it. The kurta is traditionally made of cotton or silk. It is worn plain with embroidered decoration such as Chikan and it can be loose or tight in the torso, typically falling either just above or somewhere below the knees of the wearer (Fraser et al., 2008). The front and back of a traditional kurta are made of rectangular pieces and its side seams are left open at the bottom up to varying lengths to enable ease of movement (Shukla, Pravina, 2015). The sleeves of a traditional kurta fall to the wrist without narrowing, the ends hemmed but not cuffed the kurta can be worn by both men and women, it is traditionally collarless though standing collars are increasingly popular. Kurtas are traditionally worn over ordinary pyjamas, loose shalwar or churidars (Alkazi, 1996).

Among urban youth, kurtas are being increasingly worn over jeans (Kapadia, 2017), and not only in South Asia but also in South Asians diaspora, both recently established (Perkins, 2007)

and longstanding (Kloß, 2016). Young woman and girls in urban areas are increasingly wearing kurta with jeans or leggings (Amish, 2015). Kurta design can be analyzed using ethnomathematics, which was coined by (Prahmana & D'Ambrosio, 2020) to describe the study of mathematical ideas found in any culture. Ethnomathematics is linked to humans' life learners as a problem-solving method because they are related to their lives.

Few ethnomathematics studies have been done on geometrical shapes on different kinds of textiles. (Khar & Ayachit, 2013) developed research on traditional patterns in developing contemporary methods for global fashion (Fouze & Amit, 2019) did ethnomathematical studies on geometrical shapes in Bedouin women's traditional dress. (Wan Bakar et al., 2022) and other researchers studied the sarong pelikat pattern on contemporary batik design. They found that there are three shapes on sarong pelikat pattern of contemporary batik design like stripes, squares and rectangles arranged in tessellation.

The ethnomathematical studies focus on the mathematical elements, such as geometry, derived from the Greek word's 'geo' meaning earth and 'metron' meaning measurement (Ranjan & Ranjan, 2009). Geometry explores the properties of shapes, angles, dimensions, and sizes prevalent in everyday life. Various geometric shapes, such as squares, rectangles, and triangles, embody distinct characteristics (Khaire, 2018). A square has four equal sides, two pairs of parallel sides, congruent diagonals with a perpendicular bisector, and right angles.

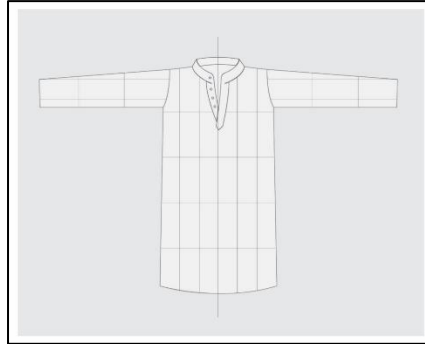
Rectangles feature opposite sides that are equal and parallel, with all angles being equal and parallel as well (Winer, 2008). Triangles, possessing three sides and vertices, exhibit angles whose sum totals 180 degrees, enclosed within all sides. Tessellation, an intriguing geometric concept, involves covering a plane seamlessly with geometric shapes called tiles, leaving no gaps.

### **Methodology**

The primary aim of our research is to delve into the geometric aspects of men's kurta designs. To accomplish this, we have adopted an ethnomathematical approach, utilizing a combination of observation, interviews, and analysis. A talented designer affiliated with the Faculty Of Creative Arts has curated a selection of geometric shapes incorporated into men's kurta designs. Our investigation involves a meticulous examination and analysis of these shapes, scrutinizing their placement and arrangement on the kurta. To gain deeper insights into the design philosophy behind these shapes, we conducted interviews with the designer. This interaction provided valuable perspectives on the intentional choices and creative reasoning applied to the incorporation of specific geometric elements into men's kurta designs. The data collection process encompasses both primary and secondary sources. Primary data includes firsthand information gathered through observation, interviews, and analysis. Secondary data, on the other hand, draws from reputable sources such as books, journals, and previous studies conducted by researchers in the field. This dual approach ensures a comprehensive understanding of the geometrical nuances within men's kurta designs, combining practical insights from the designer with a broader academic context.

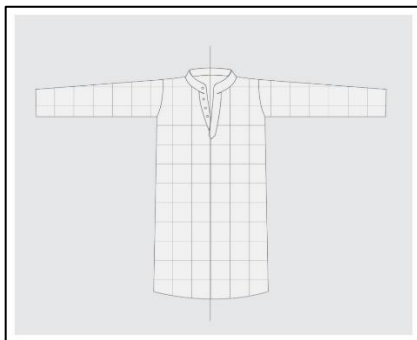
## Analysis

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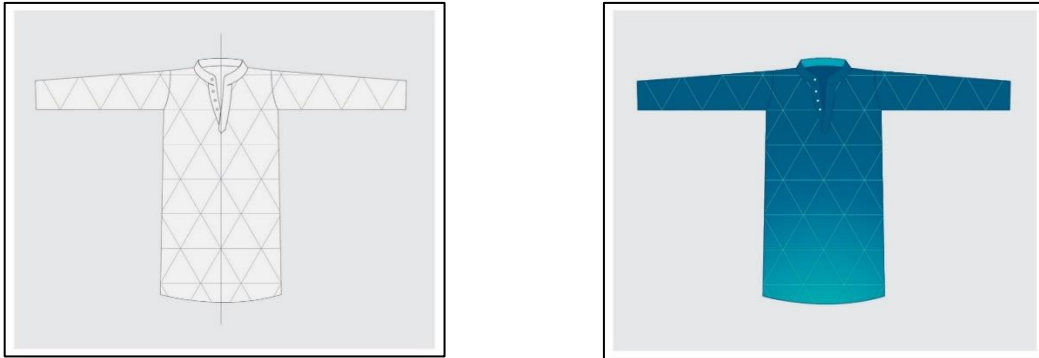
**Figure 1: The Arrangement of Rectangular Shapes in X Axis and Y Axis On Kurta Design**

The first design is a rectangle shapes created by arranging the rectangle together in tessellation in y axis and x axis. The rectangle has its own character of 2 pairs of parallel sides and 2pairs of equal sides with 4 right angles.



**Figure 2: The Arrangement of Square Shapes in X Axis and Y Axis On Kurta Design**

The second design is a square shape created by arranging squares together in tessellation. The square has its own character of 2 pairs of parallel sides, 4 equal sides, 4 right angles and the diagonals are congruent and bisect each other.



**Figure 3: The Arrangement of Triangle Shapes in X Axis and Y Axis On Kurta Design**

The third design is a triangular shape created by arranging together in tessellation. The triangular shape is named after the characteristics of a triangle which is a shape that is enclosed on all of its sides. It has 3 sides and 3 vertices. the height and base of a triangle is always perpendicular to one another. It has 3 angles, and the summation of the angles are equal to 180 degrees.

### **Conclusion**

Kurta has become the choice of many people nowadays because of its authenticity and comfortlessness. Few geometrical shapes have been innovated on kurta. The designs are squares, rectangular and triangle shapes. More geometrical designs are hoped to be invented in future to attract kurtas lovers.

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