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Exploration of the Sultan Mahmud Badaruddin Jayowikramo Grand Mosque in South Sumatra: An ethnomathematics study

Lisnani [*], Romiya Gustira

Department of Primary Teacher Education, Musi Charitas Catholic University, South Sumatra, Indonesia

[*] Correspondence: lisnani@ukmc.ac.id

Abstract

This study aims to explain the relevance of ethnomathematics research and the two-dimensional figure shapes in the building of the Grand Mosque of Sultan Mahmud Badaruddin Jayowikramo Palembang. Sultan Mahmud Badaruddin Jayowikramo Palembang Grand Mosque is located in Palembang, Indonesia. The method used in this study was qualitative research with an ethnomathematical approach. The research subjects were the foundation's general secretary, supervising secretary, and administrative staff. Researchers used A data collection technique in multiple processes, such as observation, documentation, and interviews. The data analysis techniques used data reduction, display, and drawing inference. As a result, it was shown that each part of Sultan Mahmud Badaruddin Jayowikramo Palembang Grand Mosque has a mathematical concept of two-dimensional figures and many shapes of two-dimensional figures from the architecture of the Grand Mosque.

Keywords: ethnomathematics; grand mosque; two-dimensional figure

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Introduction

Cultural heritage is a cultural heritage that is material in the form of cultural heritage objects, buildings, structures, sites, and areas on land and or in water that needs to be preserved. One of the cultural heritage buildings in Palembang can be used as a source of learning (Idris et al., 2018). Palembang is one of the largest cities in South Sumatra, which has a distinctive culture, both in terms of art and buildings (architecture). There are several cultural heritage buildings in the city of Palembang in terms of architecture, namely the *Balaputera Dewa* State Museum of South Sumatra, the People's Struggle Monument (*Monpera*), *Ampera* Bridge, *Limas* House, *Gede Ing Suro* Tomb, *Sabokingking*, Lake *Batu* and also the *Sultan Mahmud Badaruddin Jayowikramo* Mosque (Idris et al., 2018). The *Sultan Mahmud Badaruddin Jayowikramo* Grand Mosque is the oldest mosque in Palembang City, the *Sultan Mahmud Badardin Jayowikramo* Grand Mosque is located north of the Palembang Sultanate Palace and behind the Kuto Besak Fort.

Many researchers have researched ethnomathematics, primarily related to the architecture of buildings in the form of traditional houses (Funan & Mamoh, 2019; Kadir et al., 2021; Rahmawati & Muchlian, 2019), temples (Hardiarti, 2017), state (Aikpitanyi & Eraikhuemen, 2017), imperial (Zhang et al., 2021), forts (Khayat, 2020), museum (Lisnani et al., 2020), and mosques (Bakhrodin et al., 2019; Izah & Malasari, 2021; Lusiana et al., 2019; Purniati et al., 2020; Putra et al., 2020; Ridwanullah & Herdiana, 2018). Based on some of these studies, local culture can be used as a context for learning mathematics. However, other researchers have never carried out ethnomathematics research on the mosque.

Based on the first interview, an architect from Europe designed the *Sultan Mahmud Badaruddin Jayowikramo* Grand Mosque. The architecture of Indonesia, China, and Europe influences this mosque. European architectural forms can be seen from the entrance and windows in the new building of the mosque, which is large and tall. The distinctive style of Indonesian architecture can be seen from the structural pattern of the main building with three steps with a pyramid-shaped peak (Ardhian et al., 2021). The third step, the peak of the mosque or *mustaka*, has a level carved with tropical flowers. At the *mustaka's end* is a *mustaka* with a flower pattern. The mosque has also not been explored as a source of learning mathematics.

The *Sultan Mahmud Badaruddin Jayowikramo* Grand Mosque has a unique architecture, and we can learn more from the mosque, such as cultural, philosophical, and even mathematical aspects (Ardhian et al., 2021). It is a place of worship for Muslims and is a sacred place synonymous with architecture that elevates Arabic culture in its buildings (Ardhian et al., 2021). Mosque in this era is primarily a place of worship. The global function of the mosque is not only as a place of worship (prayer) but also as a referee for perfecting knowledge, faith, charity, and piety (Nurhadi, 2019). We could see geometric shapes as part of the mosque's architecture in The *Sultan Mahmud Badaruddin Jayowikramo* Grand Mosque. Geometry very well includes understanding geometry's history and cultural context, the ability to develop engaging geometric problems and theorems, and knowledge, skills, and expertise in the geometric content increase (Sunzuma & Maharaj, 2020). Students have Grand

difficulties in solving geometric problems using more than one theorem applied at an instance, so they need more imagination in learning geometry (Juman et al., 2022).

In essence, mathematics is a science that studies shapes, quantities, and concepts related to one another (Lusiana et al., 2019). This connection is related to mathematics and other disciplines, one of which is culture (Lusiana et al., 2019). Geometry comprises two-dimensional and three-dimensional figures (Yi et al., 2022). One of the mathematical materials is a two-dimensional figure. This two-dimensional shape has no space but only a plane, part of a two-dimensional figure bounded by straight lines or curves (Lisnani et al., 2020). The two-dimensional figure consists of squares, rectangles, triangles, circles, kites, trapezoids, parallelograms, and rhombuses. One suitable learning approach to understanding and learning mathematics while at the same time fostering a love for culture is to study ethnomathematics according to opinion (Noto et al., 2018).

A combination of culture and mathematics is called ethnomathematics. Ethnomathematics is an awareness of the many ways to know and do mathematics related to values, ideas, ideas, ways, techniques, and practices in cultural diversity. Ethnomathematics is a branch of mathematics that focuses on the knowledge of mathematical ideas, methods, and procedures constructed, used, and created by members of cultural groups, cultures, or people of other cultural groups (Risdiyanti & Prahmana, 2020). One of the exciting parts is the mosque because it has architectural, historical, cultural, and mathematical elements that need to be studied in more depth. This research thoroughly examines *Sultan Mahmud Badaruddin Jayowikramo* Grand Mosque in terms of architecture, culture, history, and mathematics in every part of the mosque. It is different from other studies that focus on the mosque's shape and do not generally discuss all parts of it. The exciting thing in this study is the study of architectural art, culture, and history studied by researchers compared to other researchers. Thus, this study aimed to describe the relationship between ethnomathematics studies on the building of the *Sultan Mahmud Badaruddin Jayowikramo* Grand Mosque.

Methods

The type of research conducted by the researcher used qualitative research. Research conducted by researchers using an ethnographic approach. The ethnographic approach is an approach that describes, explains, and analyzes elements of local culture by combining mathematical material, said (Putra et al., 2020). The research procedure used an ethnographic approach, namely (Fauzi et al., 2020): 1) looking for studies of articles in journals or books related to research, researchers look for relevant articles related to various existing cultures, ethnomathematics, and plane shapes; 2) determine informants, namely people who know about the mosque especially the history and the architecture; 3) conduct interviews with informants based on ethics or manners through the interview sheets; 4) making ethnographic notes prepared by a researcher 5) conducting observation Stages, the stages of observation carried out by researchers visiting and observing several buildings that have been determined by researchers; 6) the researcher documents the main points or pictures related to the research; 7) researchers, namely analyzing the results of observations or documentation of pictures, and

analyzing the results of interviews with the three subjects and then linking or connecting these results with ethnomathematical studies in the material of two-dimensional figures.

The data was collected through observation, documentation, and interviews. The research subjects consisted of three informants: the general secretary, the supervisory secretary, and employees of the administrative staff foundation at the *Sultan Mahmud Badaruddin Jayowikramo* Mosque in Palembang. The selected informants are people who know the whole of the Great Mosque. The data analysis technique uses the Miles and Huberman model, which consists of data reduction, data presentation, and conclusion (Sari et al., 2022). When conducting ethnographic research, researchers start with four fundamental questions: "Where to start looking?", "How to look?", "How to recognize that you have found something significant?" and "How to understand what it is?" These questions capture the heart of ethnographic concepts. The stages of the research are organized following these four phases of questions in Table 1 (Prahmana & D'Ambrosio, 2020).

Table 1. Design of ethnography research

General Questions	Initial Answers	Starting Point	Specific Activity
Where to startlooking?	In the architecture of the Grand Mosque Sultan Mahmud Badaruddin Jayowikramo in Palembang where there are mathematical practices in it.	Culture	Conducting interviews with people who have knowledge of the Grand Mosque Sultan Mahmud Badaruddin Jayowikramo in Palembang who guard the mosque
How to look?	Investigating the QRS (Quantitative, Relational, Spatial) aspects of the the architecture of the Grand Mosque Sultan Mahmud Badaruddin Jayowikramo in Palembang related to mathematics practice.	Alternative thinking and knowledgesystem	Determine what QRS ideas are contained in Grand Mosque Sultan Mahmud Badaruddin Jayowikramo related to mathematics practice.
What it is?	Evidence (Results of alternative thinking in the previous process)	Philosophy of mathematics	Identifying QRS characteristics in the architecture Grand Mosque Sultan Mahmud Badaruddin Jayowikramo related to mathematics practice. It shows that the shape of the Grand Mosque Sultan Mahmud Badaruddin Jayowikramo in Palembang does have a mathematical character seen from the elements of knowledge and art systems used in everyday life

General Questions	Initial Answers	Starting Point	Specific Activity
What it means?	Valued important for culture and important value patterns for mathematics	Anthropologist	Describe the relationship between the two systems of mathematical knowledge and culture. Describe mathematical conceptions that exis in architecture of Grand Mosque Sultan Mahmud Badaruddin Jayowikramo

Results

The Great Mosque of Sultan Mahmud Badaruddin Jayowikramo Palembang is one of the oldest mosques in 19 Ilir Village, Ilir Barat I District, right on Jalan Jenderal Sudirman, Palembang City Center. The mosque building still looks beautiful and antique. Besides that, this mosque has been designated as a cultural heritage since 2011 and is considered a legacy of the Palembang Darussalam Sultanate, which has a distinctive mosque building. The Sultan Mahmud Badaruddin Jayowikramo Palembang Grand Mosque was also assigned the status of a National Mosque based on the Decree of the Minister of Religion: MA/233/2003, on July 23, 2003, which was inaugurated by the President of the Republic of Indonesia, Megawati Soekarno Puteri. This researcher conducted research into several parts of the *Sultan Mahmud Badaruddin Jayowikramo* Palembang Mosque, namely at the front of the mosque, the men's prayer room, the women's prayer room, the ablutions for men and women, the library, the roof of the mosque, the Imam's room, the pulpit or the Imam's sermon, the 2nd-floor room, the 3rd-floor room, and the sound system room. Meanwhile, the results of the interviews were taken from three informants, namely the general secretary, supervisory secretary, and administration employees at the mosque foundation.

The Grand Mosque of *Sultan Mahmud Badaruddin Jayowikramo* Palembang is one of the oldest mosques in the city of Palembang because it can be seen from the building that the mosque still looks beautiful and antique. It was founded in the 18th century by *Sultan Mahmud Badaruddin Jayowikramo.* The *Sultan Mahmud Badaruddin Jayowikramo* Palembang Grand Mosque has also been designated as a cultural heritage since 2011, and this mosque is also considered a relic of the Palembang Darussalam Sultanate, which has a distinctive mosque building. The mosque was also designated as a National Mosque.

The mathematical concept contained in the mosque building is in two-dimensional figures. Two-dimensional figures that can be seen from the mosque building are mosque windows, mosque entrances, mosque roofs, mosque floors, ablution places, mosque fences, mosque speakers, library tables, or tools in the room. Based on the results of observations of the mosque, it can be found that the mathematical concept of two-dimensional figures can be found.

Based on the results of the interviews, researchers analyzed the results of the first, second, and third subject interviews. They obtained data on the names of the parts of the *Sultan Mahmud Badaruddin Jayowikramo* Palembang building, as follows: Researchers found about the history or the characteristics and features of the mosque building. The mosque was first established by *Sultan Mahmud Badaruddin Jayowikramo* and was founded in 1738 *Masehi* year and inaugurated on Monday on 28 *Jumadil Awal* 1151 *Hijriyah* year or 26 May 1748. During the Grand War, the repair of the mosque was carried out again by the Dutch East Indies government.

Then, after renovation and expansion, the total area of the *Sultan Mahmud Badaruddin Jayowikramo* Palembang Grand Mosque was 15,400 m2 which could accommodate 15,000 worshipers. For the original form of the mosque building, which is in the form of a square with a golden tiered pyramid roof, for the shape of the roof of the other room in the form of a triangle, the building ornaments have the characteristics of the city of Palembang combined with Chinese culture. What is characteristic and privileged of the mosque building is the shape of the roof of the main room in the form of a golden pyramid with steps, and at the top of the roof given *mustaka* and the roof also has several *simbar* groups of *jurais* and each side has the same number of 11 *jurais* of thorns. The mosque is one of the oldest mosques in the city of Palembang.

The observations, interviews, and documentation show that many mathematical concepts can be learned from the *Sultan Mahmud Badaruddin Jayowikramo* Palembang Grand Mosque building, including the concept of two-dimensional figures. It also proves that the context of the mosque building can be used as a learning resource for students by introducing two-dimensional figures. The following is an ethnomathematical study of the mosque building. The layout of the two-dimensional figure is on the mosque building. Area of the *Sultan Mahmud Badaruddin Jayowikramo* Palembang Grand Mosque building consists of eleven areas; there are 1) the front of *Sultan Mahmud Badaruddin Jayowikramo* Palembang Grand Mosque; 2) the men's prayer room; 3) the prayer room for women; 4) the place for ablution; 5) the library; 6) the priests' room; 7) The place of the pulpit or the place of the priest's sermon; 8) 2nd-floor room; 9) 3rd-floor room; 10) the sound system room.

The front of the mosque consists of the entrance, the front window of the mosque, the mosque wall, and the mosque fence (see Figure 1, 1a, 1b, 1c, 1d).

There are four kinds of two-dimensional figure were found a square, a rectangle, a parallelogram and a triangle.

Figure 1. The front of the mosque

rectangle

It can be seen in the figure that in the figure of a two-dimensional figure, all the sides are the same length and the opposite sides are parallel.

Figure 1a. Entrance of mosque

rectangle

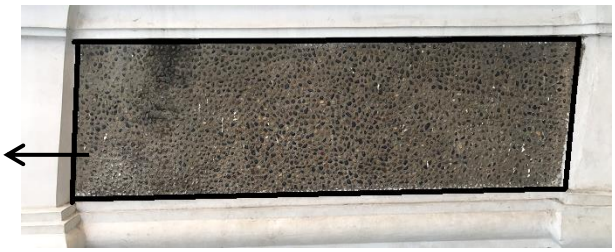


Figure 1b. The front window of the mosque

Figure 1b. Mosque wall

right triangle

It can be seen a right triangle has two right angles flanking the right angle and has one hypotenuse.

Figure 1c. Mosque fence

isosceles triangle

Isosceles equilateral triangle has three sides that are the same length and three angles that are the same size

Figure 1d. The roof of mosque

The men’s prayer room, we can see the floor, the windows of the men's prayer room, and the room ceiling (see Figure 2, 2a, 2b, and 2c).

The men's prayer room is on the right side of the main mosque room, directly adjacent to the women's prayer room named Daruridwan which is on the lower floor. The men's prayer room and the women's prayer room are separated by lines using a sutrah. The men's prayer room is also equipped with a shelf to place the Al-quran and Yasin for the congregation.

Figure 2. The men’s prayer room

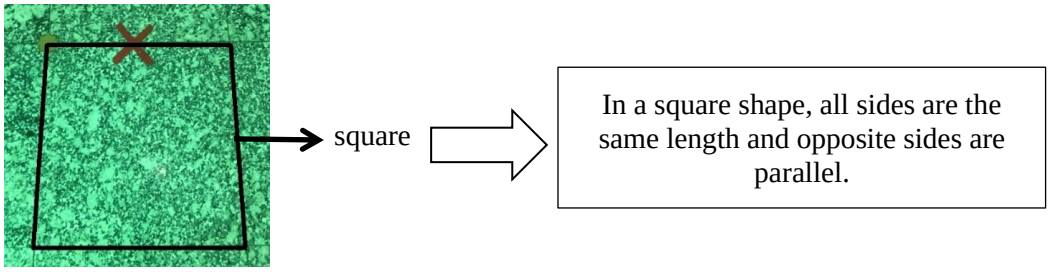


Figure 2a. The floor of the men's prayer room

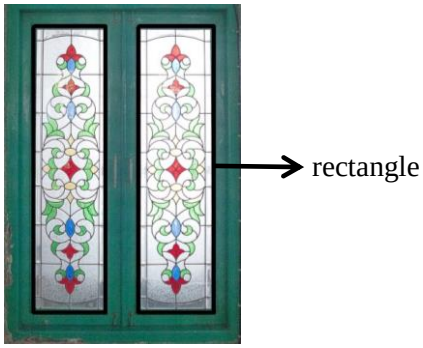


Figure 2b. The windows

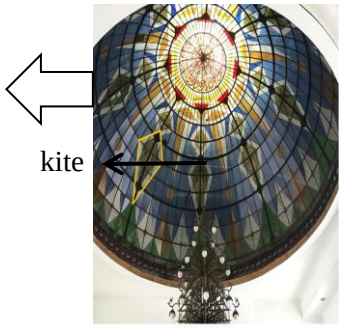


Figure 2c. The ceiling

In the women's prayer room have the small and big windows (see Figures 3 and 4)

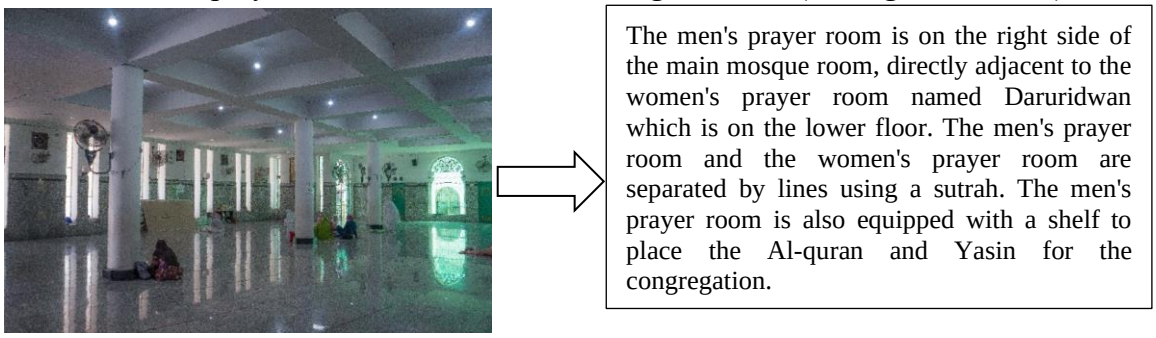


Figure 3. Prayer room for women at the mosque

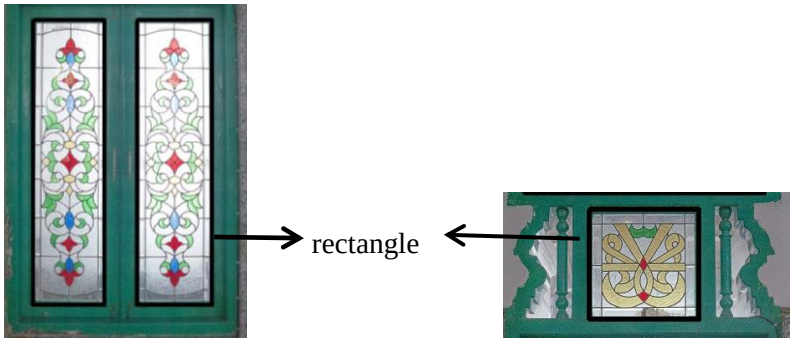


Figure 4. The big windows and small windows of the women's prayer room

The place for ablution is on the lower floor adjacent to the women's prayer room in Figure 5. The ablution area for men is on the left, and the ablution area for women is on the right. This ablution area also provides facilities such as toilets, mirrors, and lockers for storing

congregational belongings when they are in the toilet or just for ablution. The place for ablution we could see the walls and windows for ablution (in Figures 5a and 5b).

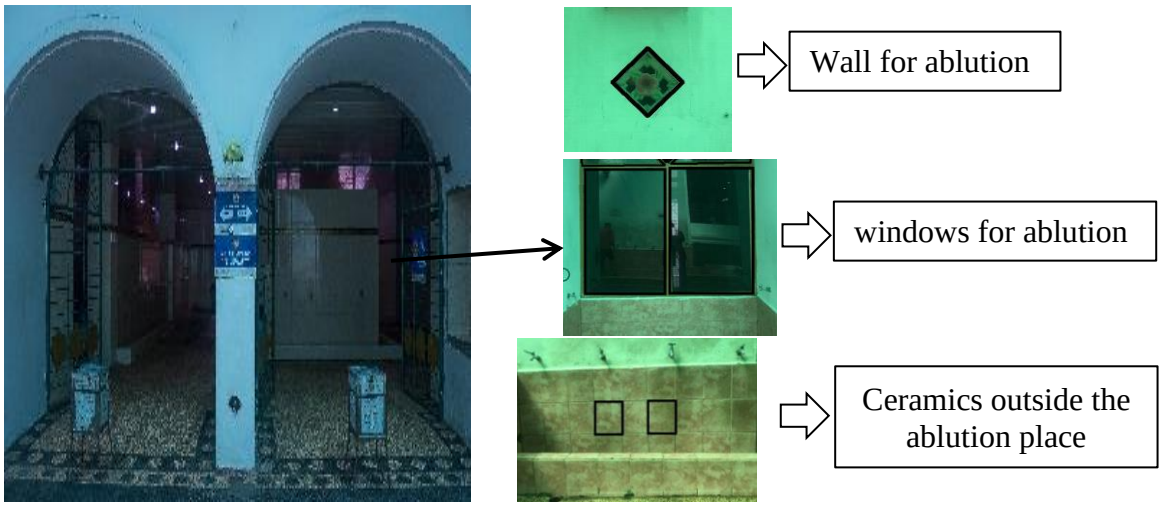


Figure 5. The place for ablution **Figure 5a.** Wall for ablution

The mosque has a library for mosque visitors, and we can find tables, windows, paintings, a bookshelf for visitors to read, and ventilation. Namely isosceles, trapezoids, squares, and rectangles. In the library are three shapes of two-dimensional figures: rectangle, isosceles, trapezoid, and circle.

Figure 6. Table in the library of the mosque

The priest's room, commonly called the main room, is located in the main building in Figure 7. The main room has a characteristic 17 sturdy pillars supporting the main room. When the main room was built in 1738 *Masehi* year, there were only eight pillars, now since the renovations were carried out, the pillars in the main room have now become 17. The pillars in the main hall are 17 pillars which means that the number of pillars means that a Muslim must pray five times a day, namely *Subuh, Dzuhur, Ashar, Maghrib, and Isya*, totaling 17 cycles for one day. The priest's room will find the windows, the entrance, and the wall of the priest's room. Three two-dimensional figures were found in the priest's room: isosceles, trapezoids, rectangles, and squares.

Figure 7. The priests's room

The pulpit or place for the Imam's prayers is placed in the main room of the *Sultan Mahmud Badaruddin Jayowikramo* Palembang Grand Mosque in Figure 8. The Imam occupies the pulpit for sermons on Friday prayers or sermons on Islamic holidays such as Eid al-Fitr or Eid al-Adha, which has a height of 2 meters and a width of 1 meter. The pulpit where the Imam usually sits has the pattern on the seat of the original Palembang City pattern with golden carvings. The place for the Imam's prayer is located next to the pulpit because if the Imam has finished the sermon, the Imam will come down and perform his prayer below in a place that has been prepared for the Imam to pray. At the pulpit or where the Imam is preaching, there are wooden carvings in the shape of a square and a circular wall clock.

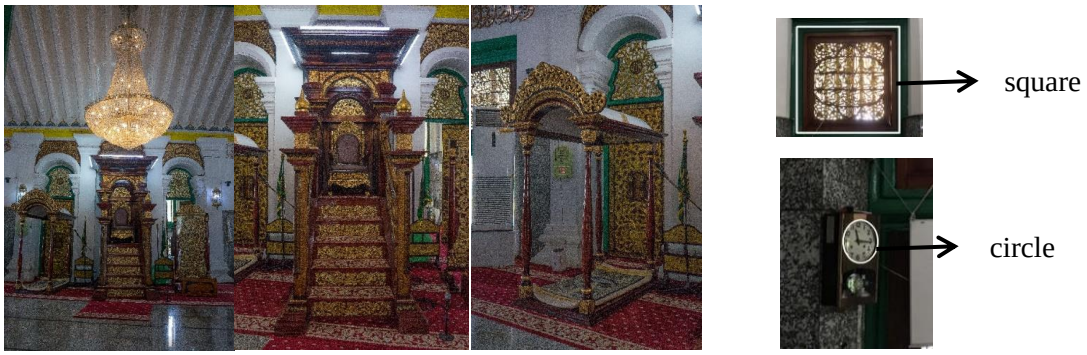


Figure 8. The pulpit and place for the Imam's prayers

The 2nd-floor room, or what is commonly called the Darunajjah room (see Figure 9), the 2nd-floor room is rarely used for daily prayers by the congregation for Friday prayers or for prayers to commemorate Islamic holidays such as commemorating Eid al-Fitr and Hari Raya. Eid al-Adha. From the 2nd-floor room, we could see the windows and lights of the 2nd-floor room.

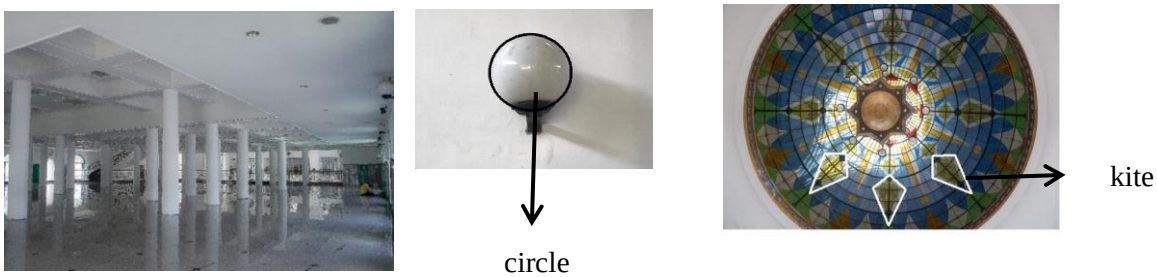
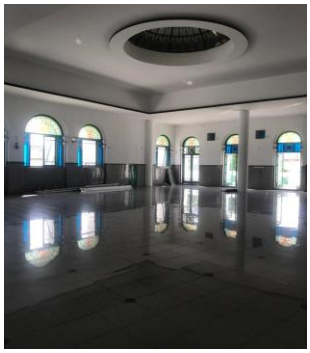


Figure 9. The 2nd floor room

The 3rd-floor room, or what is commonly called the Al-Magfirah room (shown in Figure 10), the 3rd-floor room is also rarely used for daily prayers because the congregation usually uses the 3rd-floor room for Friday prayers or for prayers to commemorate Islamic holidays such as commemorating Eid Al-Fitr. Fitri and Eid al-Adha. The 3rd-floor room is different from the 2nd-floor room or other rooms because the 3rd-floor room does not have pillars that support it solidly like the other rooms. This 3rd-floor room is directly opposite the library, and this 3rd-floor room has a warehouse to store rarely used items. From the 3rd-floor room, there are several two-dimensional figures, such as those in the 3rd-floor room window and the 3rd-room reporter. In the 3rd floor room, we could find ceiling and windows (Figures 10a and 10b).



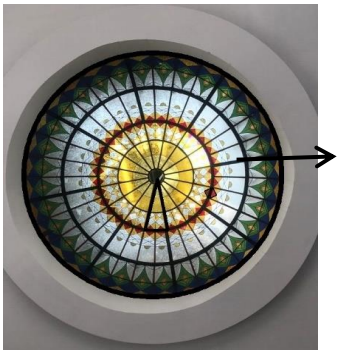


Figure 10. The 3rd floor room **Figure 10a**. The ceiling

Figure 10b. The window

The sound system room at the *Sultan Mahmud Badaruddin Jayowikramo* Grand Mosque is located in a special room (shown in Figure 11); the sound system room is directly adjacent to the pulpit or where the Imam is preaching. Because of the sound system, space is directly divided up to the top of the tower. The sound system room is the room that regulates the sound system in the mosque. Several tools exist in the sound system room, such as speakers, power amplifiers, equalizers, and audio mixers. In the sound system room, there are not only tools to adjust the sound system for the Imam who is leading the prayer, the Imam is preaching, or for the call to prayer, but this sound system room is also the place where the Imam usually uses it to put the clothes the Imam has worn or a place to put drinks for the guests—priest or employees who guard the sound system room. We found a speaker, electric spot, and mini speaker (Figure 11, 11a, 11b, 11c).

Figure 11. The sound system room

Figure 11a. Speaker

Figure 11b. Electric spot

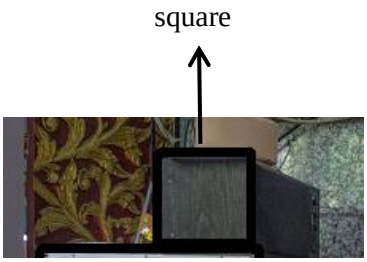


Figure 11c. Mini speaker

Discussion

Based on data analysis on the *Sultan Mahmud Badaruddin Jayowikramo* Palembang Grand Mosque building, there is a mathematical concept of two-dimensional figures. The mathematical concept found in the mosque building is the concept of a two-dimensional figure. The types of two-dimensional figures include rectangles, squares, triangles, parallelograms, rhombuses, kites, trapezoids, and circles. It also proves that the context of the mosque can be used as a source of learning mathematics. In line with Noto et al. (2018) opinion that mathematics is one of the basic sciences of all sciences, both reasoning and applied aspects play an important role in efforts to master science, technology, and culture. So that learning mathematics for students is more exciting and more meaningful. The circle, according to Putra et al. (2020), suggests that the two-dimensional figure of a circle is a collection of points on a curved line that has the same distance from a particular center point. In the curved line, both ends meet to form a circle area (area of the circle). The concept of a circle has several elements, including the center point, radius, diameter, and bowstring. This circular building has no corner points and only has one side, namely a curved line.

The type of trapezoid in the Imam's room wall building is an isosceles trapezoid; according to Priatna and Yuliardi (2019) stating that a building in the form of an isosceles trapezoid is a building where the sides that are not parallel are the same length. Inside a trapezoidal building, this isosceles has the same length diagonals. The trapezoid-shaped table is a right-angled trapezoid. According to Priatna and Yuliardi (2019), this isosceles trapezoid-

shaped building is a building that has right angles that are parallel and have opposite sides. Parallel. A building in the form of a parallelogram is a quadrilateral whose parallel sides are the same length and whose opposite angles are the same size. The rhombus-shaped air vent is located on the outer wall adjacent to the wall of the *Darurahma* room or women's prayer room.

Based on the results of their research, Marhummah and Mariana (2020) stated that air ventilation is one part that is always present in every building. The function of air ventilation is to maintain the temperature of the indoor air to keep it cool and exposed to air from outside, as well as one of the media for the entry of sunlight into the room. The outer wall, which has air vents in the shape of a rhombus, below also has a shower for ablution for male worshipers. A building in the form of a rhombus is a building whose four sides are the same, and the intersection of its diagonals forms a right angle. It also proves that the context of the mosque can be used as a source of learning mathematics. According to Noto et al. (2018) explaining that mathematics is one of the basic sciences of all sciences, and both aspects of reasoning and its application play an essential role in efforts to master science, technology, and culture. So that learning mathematics for students is more exciting and more meaningful. The context of the mosque can be applied in learning mathematics because then students understand the material of two-dimensional figures using a natural or concrete context so that it is easier for students to understand the material of two-dimensional figures. They are following the opinion of (Fauzi et al., 2020) that ethnomathematics is an approach applied in learning mathematics associated with a culture so that from an existing culture, it could be used as a critical point of learning mathematics.

Ethnomathematical studies found in the mosque building on traditional carving art and the mosque building have their own characteristics, which can be seen from the ornaments typical of Palembang local culture and Chinese culture. Typical buildings of Chinese culture can be seen from the roof of the main room of the mosque, which is pyramid-shaped and above the peak in the form of a golden temple. In contrast, the typical local Palembang building can be seen from the pulpit or sermon place, which has typical carvings of Palembang culture or is commonly called a lake. Palembang's lacquer craft art is a craft that has its own uniqueness, which is not shared by other regions in general; the art of lake craft is the work of the Palembang people in collaboration with Chinese culture where the art of craft has a distinctive color, gold with motifs in the form of flowers or animal motifs (Mainur, 2016).

The mosque building shows a form of cultural preservation typical of Palembang. Following Mainur (2016) that the characteristics of Palembang City carvings are very distinctive, the carvings with floral motifs and dyes are also dominated by golden yellow, and the sheen produced by gold paint distinguishes carving art from other regions. That way, the art of carving on the building window section of the mosque with floral motifs with a golden color and having its characteristics in the mosque shows a form of cultural preservation typical of the city of Palembang and an ethnomathematical study of the mosque. The shape of the steps of the mosque building was influenced by the primary building of the Hindu-Javanese temple, which the Grand Mosque of Demak then absorbed. At the same time, the tip

of the tower is conical, like a cone. The historical and cultural values in the mosque's distinctive and attractive building form are the main attractions for researchers to conduct research.

Based on the results, it can be used as a new learning resource for students. In addition, students can, at the same time, learn about the history of the mosque. They are following the results of Wardani (2019) that teachers as teachers need to create learning that involves all student activities in the thinking process so that by applying ethnomathematics as a learning approach, it will be possible for a material learned to be easier to understand because the material is directly related to the culture around. In this way, the ethnomathematical study of the mosque building in two-dimensional figure learning can be used as a learning resource to be more innovative.

Conclusion

In the mosque building, there is a mathematical concept in the two-dimensional figure: equilateral triangle, parallelogram, kite, rhombus, isosceles trapezoid, right trapezoid, and circle. Therefore, researchers can conclude the ethnomathematics contained in the mosque building, which in particular has a flat shape on the front fence of the main room, on the mosque window, mosque door, mosque roof, mosque floor, mosque ceiling, and place of worship: prayer, the Imam's room, engraving the pulpit, a shower for ablution, windows for ablution, ceramics for ablution, and in the library.

In addition, the traditional carving art of the city of Palembang is mixed with Chinese culture. Buildings can be seen from the Palembang local culture at the pulpit or sermon places, and on the windows and doors of the mosque, there are traditional Palembang carvings. The carvings have a distinctive style, motif, and color, namely golden color or what is commonly called lakeur art, while buildings with Chinese culture can be seen. On the roof of the mosque, the shape of a pyramid whose peak is in the form of a temple with a distinctive golden color. The mosque building shows a form of cultural preservation, the preservation of typical Palembang culture, and the existence of ethnomathematical studies. This research is limited to the matter of two-dimensional figures seen in mosques.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this manuscript. Additionally, ethical issues including plagiarism, fraud, data fabrication and/or falsification, duplicate publication and/or submission, and redundancy have been closed by the authors.

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