Indonesian Journal of Mathematics Education
Vol. 6, No. 2, October 2023, pp: 49~59
p-ISSN: 2654-3907, e-ISSN: 2654-346X
e-mail: ijome@untidar.ac.id, website: journal.untidar.ac.id/index.php/ijome

The Exploration of Ethnomathematics Houses Malay 'Limas Potong' The Batam Islands of Riau

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Abstract

Ethnomathematics is the study of how a group of individuals in a particular culture understand, communicate, and use cultural ideas and practices that researchers identify as mathematics. To return cultural heritage of traditional house in Batam, Riau Islands, and to further explore the idea of mathematical geometry inherent in the traditional house, so this research aims to explore the ethnomathematics in the Malay Traditional House 'Limas Potong'. This study applied a qualitative approach that was conducted in the Malay Traditional House 'Limas Potong', specifically in the Kampung Melayu neighborhood of Batam City's Nongsa District in the Riau Archipelago. The data used in this research was obtained from these explorations or already-published articles. Observation, interviews, and documentation were used as data collection methods. In this research, data analysis was carried out in two stages: data analysis in the field and data combining. According to the research findings, each decorative and structural part of the Malay Traditional House 'Limas Potong' incorporates mathematical ideas in geometrical shapes and components. Measurement, architectural design, mathematics learning, and application of learning are all related to ethnomathematics in the Malay Traditional House 'Limas Potong'. The construction of the Malay Traditional House 'Limas Potong' can be utilized as a learning resource for students, especially in geometry material, according to some mathematical ideas contained in the structure of the traditional house. Ethnomathematics exploration will inspire teachers to make this a new alternative to developing creativity in students' mathematics learning.

Keywords: Ethnomathematics, mathematics learning, the Malay traditional house 'Limas Potong'

INTRODUCTION

The 13,667 large and small islands that makeup Indonesia, the world's largest archipelago, run from Sabang to Merauke. Additionally, Indonesia has 1,128 tribes. Indonesia has a diverse population of ethnic groups and a wealth of traditional culture (Febriantini, 2022). Traditional cultural wealth, especially in Indonesia, can contribute to a country's identity and economic prosperity. Grammatically, the word culture is where the word culture comes from. A society's creativity, taste, and aim of a way of life passed down from generation to generation is called culture. In contrast, culture is the product of a diverse society's innovation, taste, and intention (Antara & Yogantari, 2018). Mar et al. (2021) claims that culture is a social habit passed down from generation to generation that gives a place its identity.

The Riau Archipelago is one of Indonesia's provinces with a distinctive variety of traditional cultures (Afriliziana & Roza, 2021). Mainly Malay culture is one of the rich cultural traditions of the Riau Archipelago. Numerous areas, including Tanjung Pinang City, Batam City, Bintan Regency, Lingga Regency, Natuna Regency, and Anambas Regency, are rich in these cultural legacies. A

traditional house is a part of the Riau Archipelago's cultural history.

Indonesian traditional homes come in a wide variety of styles. The traditional house's overall shape has a specific significance in each locale. The traditional house is a traditional structure that exhibits a tribe's wisdom culture. (Nurfauziah & Putra, 2022). Define traditional house as a structure with specific features that characterize and represent the local people's culture. In order to protect the traditional cultural values currently being replaced by modern culture, Indonesia is still conserving traditional homes (Dapa & Suwarsono, 2019).

Traditional houses of various types can be found in every city and area in the Riau Archipelago. The Malay Traditional House ‘Limas Potong’ is one of the traditional homes that can be found in Batam. For the Malay population, the Malay Traditional House ‘Limas Potong’ symbolizes its culture (Monikasari & Fitriyanti, 2023). When Malay people arrived in Batam City and wanted to settle there, the Malay Traditional House ‘Limas Potong’ was first established. They turned a traditional pyramid-shaped house into a home. This conventional home's construction started in 1958 and was finished in 1959. Because of the structure's proximity to the shore and stilted construction, the ‘Limas Potong’ Malay Traditional House was designed to avoid high tides. The name ‘Limas Potong’ for this traditional Malay house comes from the roof which has the shape of a truncated pyramid. The space-forming components of this structure are made of wood, while the roof is made of zinc. Most traditional structures feature acculturation, defined as the meeting and blending of two or more cultures without losing the distinctive characteristics of each culture (Asnawi & Dzikri, 2016).

Math education must incorporate culture (Boaler, 2015). Mathematical geometry is present in the traditional dwelling. Students' ability to learn mathematics may be aided by the presence of a culture that can be incorporated into the subject. Additionally, when learning mathematics, students might observe ingenuity and originality. By incorporating culture into math education, mathematics, a component of culture, may be used to examine something innovative (Saputra et al., 2022).

Ethnomathematics is the study of mathematics about culture. According to Nurfauziah and Putra (2022) and Sipahutar and Reflina (2023), ethnomathematics is a method that may be used to connect the study of mathematics with cultural issues as an educational experience for students. To will help the students better comprehend how to learn mathematics. Although “ethnomathematics" is relatively new, mathematics is present in all aspects of daily life, even when we are unaware of it. According to Fajriyah (2018), ethnomathematics can reveal cultural knowledge and inspire students to learn the subject.

The existence of the traditional house as a cultural heritage that will be endangered with extinction presents a challenge in investigating the Malay Traditional House ‘Limas Potong’. As a result, there is no publicly accessible cultural legacy in the Batam region. The knowledge of traditional Malay homes should be conserved as one of the gems of Malay civilization. Many items linked to ethnomathematics, which connect culture and learning mathematics, were discovered in the Malay Traditional House ‘Limas Potong’. To reintroduce the cultural heritage of traditional houses in Batam, Riau Islands, and delve deeper into the concept of mathematical geometry contained in these traditional buildings, an ethnomathematics exploration of the ‘Limas Potong’ Malay Traditional House has been conducted. It is hoped that ethnomathematics exploration would inspire teachers to adopt this as a fresh approach to fostering students' creativity and giving them a sense of security when learning mathematics.

METHODS

This study, which employs a qualitative methodology, aims to identify mathematical concepts in the Malay Traditional House

‘Limas Potong’ as evidence of the relationship between Malay culture and mathematics. This study was conducted in Batam's Nongsa District, specifically at the Malay Traditional House ‘Limas Potong’. In comparison, the data used in this study was collected from already published journals or theses. The author is just involved in this procedure as a data gatherer.

The authors used observation, interviews, and documentation as data collection tehcniques to identify the location and source of research data. This research resulted in observations. The traditional pyramid-shaped house's intricate shape was observed, and it was both directly and indirectly analyzed. An interview with one of the traditional house's heirs, who still resides in the neighborhood where the Malay Traditional House ‘Limas Potong’ is situated and who is familiar with the structure's past and present, was also conducted. The documentation was done while the heirs of the pyramid-shaped traditional dwelling were observed and interviewed.

In this study, data analysis was done twice: first, while the researchers were collecting data, arranging the stages of data collection based on the topic under study, and looking for relevant literature sources. These decisions were made to narrow the study's focus. Then, after data collection, combine data from interviews, observations, and documentation in the second data analysis stage. After performing both data analyses, the final step is to develop conclusions by outlining how the research's findings can be explained.

RESULTS AND DISCUSSION

In essence, the culture in the local society is a critical element that significantly influences learning. In this situation, culture significantly impacts how students perceive the world. Naturally, a piece of content will be more challenging to comprehend when removed from the cultural framework of the student's milieu. As a result, we require a method for teaching mathematics that can bridge the gap between math and culture. Cultural inquiry is one strategy that can be used and subsequently linked to studying math. In this instance, the Malay Traditional House 'Limas Potong' was the centre of the investigation.

A traditional home is a structure that may be passed down from generation to generation and is used as much as possible by locals to carry out activities. It has unique qualities in making, form, function, and ornamentation (Alfiansyah et al., 2022). Traditional homes can be found in practically every region of Indonesia, particularly in the province of the Riau Archipelago. The Malay Traditional House ‘Limas Potong’ owns one of the traditional homes in Batam, the Riau Islands. Figure 1 shows the houses.

Figure 1. The Houses Malay ‘Limas Potong’

The phrase "cut pyramid" is derived from the roof of the house, which has a truncated pyramidal shape. The home is in Batu Besar Village, Nongsa District, Batam's historic Kampung Melayu. It currently serves as a tourist destination for culture, having been opened in 2011 by the mayor of Batam. Construction on this home began in 1958 and was finished in 1959. Haji Abdul Karim built it for the home's owners, Haji Sain bin Syawali and his wife, Hadjarah Binti Singkruk. The house has the Limas Bambu Traditional House features and is shaped like a stage that rises 1.5 meters above the ground. This home's five main rooms, the terrace, front room, living room, back room, and kitchen, are other distinguishing

characteristics (Asnawi & Dzikri, 2016). Rows of wooden plank barriers enclose each of these areas.

The Malay Traditional House 'Limas Potong' is in the Nongsa District of Batam City, Riau Archipelago, on Jalan Muhammad Akib with RT/RW 01/08, Kampung Melayu. The distance from this site to downtown Batam is roughly 13.3 kilometres. Around ±92.4 kilometres separate the traditional home from the provincial capital of the Riau Archipelago. The traditional home's astronomical coordinates are N 01° 08.263' and E 104° 08.371′. The
typical pyramid-cut house has a construction size of $6.30 \times 16.75\ m^2$ and a land area of $20 \times 25\ m^2$. The placement of the 'Limas Potong' Malay Traditional House, according to the layout plan, is presented in Figure 2.

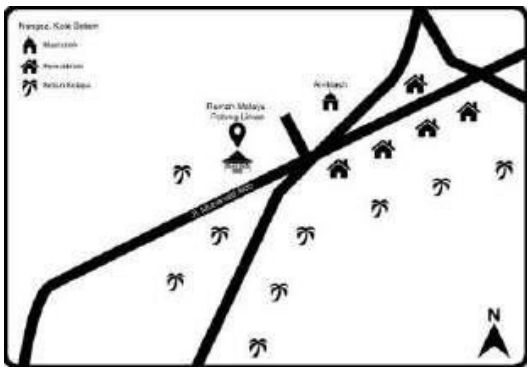

Figure 2. 'Limas Potong' Malay Traditional House's floorplan

Each part and decoration of the 'Limas Potong' Malay Traditional House, which comprises flat and spatial features, was investigated for this research. Whereas the ornament is the decoration within the home, the aim of the components is the state of the house construction, which can be viewed in terms of its form. The construction of the Malay Traditional House 'Limas Potong' has several mathematical concepts that may be mastered. The Malay Traditional House 'Limas Potong' will host the following ethnomathematics presentation. Objects of ethnomathematical values discovered in the Malay Traditional House 'Limas Potong:

The Roof of Malay Traditional House 'Limas Potong' Roof

Figure 3 and 4 shows the roof of a Malay Traditional House and the geometric concepts contained.

Figure 3. The Roof of Malay Traditional House

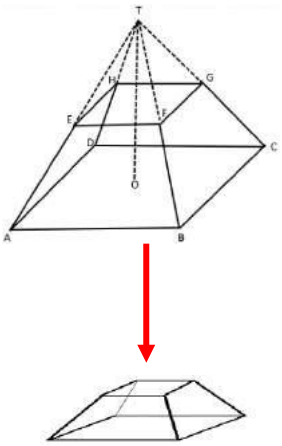

Figure 4. Geometry Concept in the Roof of Malay Traditional House

The Malay Traditional House 'Limas Potong' features a pyramid-shaped roof with a square base and a rectangular pyramid with a truncated top at the base of the roof. Calculating the pyramid's volume and surface area is an application of learning. Applying the formula (1) and (2).

Total Surface Area of Pyramid:

$$L = (\tfrac{1}{2} \text{ perimeter} \times \text{slant height}) + \text{Base Area} \quad (1)$$

Volume of pyramid:

$$V = \tfrac{1}{3} \times \text{Base Area} \times \text{height} \quad (2)$$

The Roof Layout of Malay Traditional House 'Limas Potong'

Figure 5 and 6 shows the roof layout of a Malay Traditional House and the geometric concepts contained.

Figure 5. The Roof Layout of Malay Traditional House

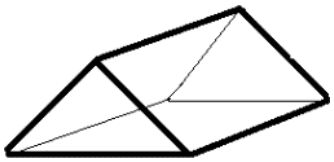

Figure 6. Geometry Concept in the Roof Layout of Malay Traditional House

The Malay Traditional House 'Limas Potong's roof features a prism-shaped top and a triangle base. The application of learning is to recognize and describe naturally occurring or artificial objects with triangular prism-shaped surfaces to determine the prism's surface area and volume. Applying the formula (3) and (4).

Total Surface Area of prism:

$$L = (\text{Perimeter} \times \text{Length}) + (\mathbf{2} \times \text{Base Area}) \quad (3)$$

Volume of prism:

$$V = \text{Area of Base} \times \text{height of the prism} \quad (4)$$

Dish Rack

Figure 7 and 8 shows the disk rack and the geometric concepts.

Figure 7. The Disk Rack in The Malay Traditional House

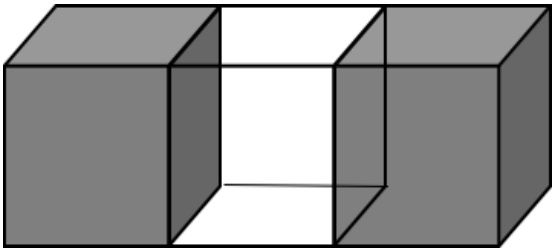

Figure 8. Geometry Concept in the Disk Rack

The dish rack is shaped like a block of three rectangles and is part of the 'Limas Potong' Malay Traditional House furnishings. Calculating the cube's surface area and volume is an application of learning. Applying the formula (5), (6), and (7).

Lateral Surface Area:

$$\boldsymbol{LSA} = \mathbf{2}\boldsymbol{h}(\boldsymbol{l} + \boldsymbol{b}) \quad (5)$$

Total Surface Area of Cuboid:

$$\boldsymbol{TSA} = \mathbf{2} \times (\boldsymbol{lb} + \boldsymbol{bh} + \boldsymbol{hl}) \quad (6)$$

Volume of Cuboid:

$$\boldsymbol{V} = \boldsymbol{l} \times \boldsymbol{b} \times \boldsymbol{h} \quad (7)$$

With l = length, *b* = base, *h* = height, *LSA* = Lateral Surface Area, *TSA* = Total Surface Area, and *V* = Volume.

Wardrobe, Beds, and Pillars

The traditional house include geometric furnishings like wardrobes and beds, also has pillars that support the roof. Figure 9 shows the wardrobe, Figure 10 shows the beds, and Figure 11 presents the pillar in the Malay Traditional house.

Figure 9. The Wardrobe

Figure 10. The Bed

Figure 11. The Pillars of Malay Traditional House

Calculating the Cuboid's surface area and volume is an application of learning (see Figure 12). Applying the formula (8), (9), and (10).

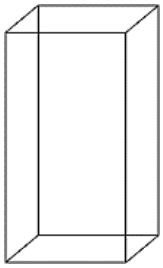

Figure 12. The Geometry Concept of Furnishings and Pillar.

Lateral Surface Area:

$$LSA = 2h(l + b) \quad (8)$$

Total Surface Area of Cuboid:

$$TSA = 2 \times (lb + bh + hl) \quad (9)$$

Volume of Cuboid:

$$V = l \times b \times h \quad (10)$$

with l = length, b = base, h = height, LSA = Lateral Surface Area, TSA = Total Surface Area, and V = Volume.

The Malay Traditional House 'Limas Potong' Doors and Windows

The Malay Traditional House has rectangular- shaped doors and windows (see Figure 13 a and b). Then they also have a rectangular dimension for pictures and historical frames hanging on traditional homes' walls (see Figure 14 a and b). The geometric illustration is can be seen in the Figure 15.

(a)

(b)

Figure 13. The Windows of Malay Traditional House

(a)

(b)

Figure 14. Historical and Picture Frames in the Malay Traditional House

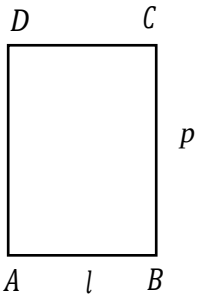

Figure 15. Geometry Concept of the Door Parts

Rectangle characteristics: 1) It has rotational symmetry level 2 and two symmetry axes; 2) It may fill its frame in four different ways; 3) The opposite sides (AB= DC and AD = BC) are parallel and have the same length; 4) All four interior angles are equal in size (90°); 5) (AC = BD) The diagonals are equal in length. Along with being intersected and divided into equal lengths (AO = OC =BO = OD).

The dimensions of a rectangle are p and l. For the rectangle, side AB = CD represents the length and side AD = BC represents the width. The application of learning is to recognize a rectangle's characteristics and calculate its area and perimeter. Applying the formula (11) and (12).

Perimeter of rectangle:

$$\boldsymbol{P = 2(l + w)} \quad (11)$$

Area of rectangle:

$$\boldsymbol{A = l \times w} \quad (12)$$

with l = length, w = width, P = perimeter, A = area.

The Window Ornaments of Malay Traditional House 'Limas Potong'

Figure 16 shows the window ornaments of the Malay Traditional House and Figure 17 illustrates the geometry concept.

Figure 16. Windows Ornaments in the Malay Traditional House

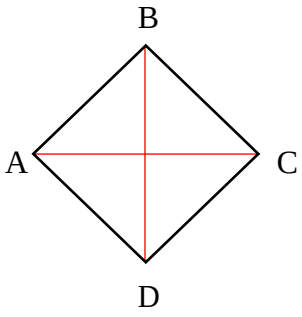

Figure 17. Geometry Concept of The Window Ornaments

The Malay Traditional House 'Limas Potong' has rhombus- shaped window ornaments. The rhombus has four-sided shape where all of the sides are of equal length. The sides BD and AC correspond to the lengths of the first and second diagonals, respectively. The lesson's application is to calculate a square's area and perimeter. About the formula (13) and (14).

Perimeter of rhombus:

$$\boldsymbol{P = 4 \times a} \quad (13)$$

Area of rhombus:

$$\boldsymbol{A = 1/2 \times d1 \times d2} \quad (14)$$

with a = side, P = perimeter, A = area, $d1$ = diagonal 1, and $d2$ = diagonal 2

The Ventilation of Malay Traditional House 'Limas Potong'

The Malay Traditional House 'Limas Potong' has three square shaped vents above the entryway (see Figure 18). Four sides of a square have the same length. The geometry concept in its part is presented in Figure 19.

Figure 18. The Ventilation of Malay Traditional House

Figure 19. Geometry Concept of the Ventilation

Calculating the square's area and perimeter is an application of learning. About the formula (15) and (16).

Perimeter of square:

$$\boldsymbol{P = 4 \times a} \quad (15)$$

Area of square:

$$\boldsymbol{A = a \times a} \quad (16)$$

with $\boldsymbol{\pi = 3{,}14\ or\ 22/7}$, a = side, A = area, and P = perimeter.

Quarter-Circle Ornaments on Doors and Windows

There are further decorations in four-quarter circles on the doors and windows (see Figure 20).

Figure 20. The Quarter-Circle Ornaments on Doors and Windows

The geometry concept on it is on circle material. A quarter circle (see Figure 21) results from a complete circle (see Figure 22).

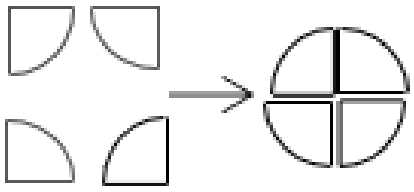

Figure 21. Quarter Circle

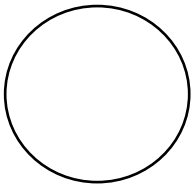

Figure 22. Complete Circle

The application of learning is to compute the diameter and area of a circle. About the formula (17) and (18).

Circumference of Circle:

$$\boldsymbol{C = 2\pi r} \quad (17)$$

Area of Circle:

$$\boldsymbol{A = \pi r^2} \quad (18)$$

with $\boldsymbol{\pi = 3{,}14\ or\ 22/7}$, r = radius, A = area, and C = circumference.

Concept of Two Buildings being Congruent on the Roof of a Malay Traditional House 'Limas Potong'

The roof of the Malay Traditional House "Limas Potong" comprises two upright prisms with bases the same size and shape as triangles. Figure 23 shows the buildings and Figure 24 shows the geometry concept of the buildings, i.e. triangles with congruence are equilateral.

Figure 23. Buildings of the Malay Traditional House

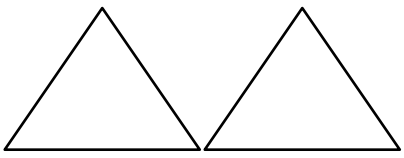

Figure 24. Geometry Concept of the Buildings

The idea of two pyramid- shaped roofs that are considered congruent because they share a triangular form may be found in the notion of learning.

Food Cover

The Malay Traditional House 'Limas Potong' kitchen has a conical-shaped food cover (see Figure 25). It can be an geometry concept of cone (see Figure 26). A cone has curved sides and a circular base.

Figure 25. Food Cover in the Malay Traditional House

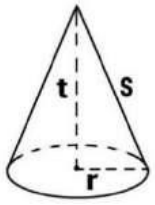

Figure 26. Geometry Concept of Food Cover

The application of learning is to calculate the volume and surface area of a cone, as a formula (19), (20), and (21).

Lateral Surface Area:

$$LSA = \pi rl \quad (19)$$

Total Surface Area of Cone:

$$TSA = \pi r(r + l) \quad (20)$$

Volume of Cone:

$$V = 1/3\pi r^2 h \quad (21)$$

with r = radius, l = slant height, h = height, $\pi = 3,14$ *or* $22/7$, LSA = Lateral Surface Area, TSA = Total Surface Area, and V = volume.

The Roof of Malay Traditional House 'Limas Potong'

On the upper roof of the Malay Traditional House 'Limas Potong' (see Figure 27) also there is geometry concept. The geometry concept is can be seen at Figure 28.

Figure 27. The Roof of Malay Traditional House

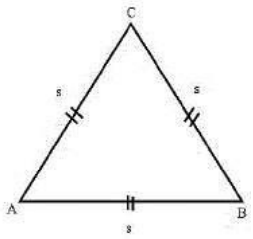

Figure 28. Geometry Concept of the Roof

The application of learning is to calculate the triangle's area and perimeter. About the formula (22) and (23).

Perimeter of triangle:

$$P = a + b + c \quad (22)$$

Area of triangle:

$$A = \frac{b \times h}{2} \quad (23)$$

with b = base, h = height, a = side, and c = side.

According to some of the ethnomathematical principles found in the Malay Traditional House 'Limas Potong' described above, the inhabitants of the Riau Archipelago have never used mathematics in their everyday life, particularly in geometry. In the Riau Archipelago, ethnomathematics has grown out of communal activities like creating plans for building traditional houses and creating patterns for carving on carved motifs in various portions of their house. This is

consistent with the ethnomathematics research of the Ogan Komering Ulu House in South Sumatra, which contains various ornamental motifs or carvings in geometric forms and is a particular sort of structure, namely a pyramid (Sari et al., 2018). The structure of a traditional house can be utilized as a source of student learning, particularly in geometry material, according to some of the mathematical notions in their construction.

Many scholars in mathematics education support the relatively young subject of study known as ethnomathematics. However, scientists should consider this new idea from other angles. Even though considering students' common experiences might benefit education, some of the issues I raised in this thesis should be considered. More empirical research is required to answer the question, "What do the groups of people under the focus of ethnomathematics think about ethnomathematics? in addition to the theoretical issues I discussed here. This is necessary to avoid presuming that this theory, primarily developed and argued by Westerners, reflects the realities of these cultures and applies to their educational system (Cimen, 2014).

CONCLUSION

The 'Limas Potong' Malay Traditional House in Batam, Riau Islands, has a history that may be exploited as a cultural heritage, according to the findings and debate. The proportions of the shapes discovered on the traditional house's body components and the things found within are also included in the ethnomathematics investigation of the Malay Traditional House 'Limas Potong'. This classic home has all the geometric ideas, such as flat forms and space shapes. Measuring, architectural design, learning mathematics, and applying learning are all related to ethnomathematics in the Malay Traditional House 'Limas Potong'.

The concept of learning mathematics will be more prosperous as a result, and the stigma associated with students who believe mathematics is complicated can be eliminated by incorporating it into daily life so that math education is kept up to date. It is advised that future researchers examine the concept of mathematics in the culture of the area where the researcher is located. Then, a module or learning media is required for each school level to be used to teach and learn activities to increase learning activities that focus more on ethnomathematics features. Last but not least, using a field trip to explore the Malay Traditional House 'Limas Potong' as teaching material for arithmetic.

REFERENCES

Afriliziana, L. A., & Roza, Y. (2021). Analisis kebutuhan pengembangan e-modul etnomatematika berbasis budaya melayu Kepulauan Riau. *Jurnal Analisa*, *7*(2), 135–145. https://journal.uinsgd.ac.id/index.php/analisa/article/view/14753

Alfiansyah, I. R., Manurung, L. T., & Wulandari, R. (2022). Akulturasi budaya yang mempengaruhi elemen interior bangunan pada rumah adat melayu Limas Potong Batam, Kepulauan Riau. *Jurnal Pengetahuan & Perancangan Desain Interior*, *10*(1), 12–24. https://doi.org/10.24821/lintas.v10i1.6945

Antara, M., & Yogantari, M. V. (2018). Keragaman budaya Indonesia sumber inspirasi inovasi industri kreatif. *SENADA (Seminar Nasional Manajemen, Desain & Aplikasi Bisnis Teknologi)*, *1*, 292-301. https://eprosiding.idbali.ac.id/index.php/senada/article/view/68

Asnawi, J. I., & Dzikri, A. (2016). Video animasi 3D pengenalan rumah adat dan alat musik Kepri dengan mengunakan teknik render cel-shading. *Simetris: Jurnal Teknik Mesin, Elektro dan Ilmu Komputer*, *7*(2), 439–448. https://doi.org/10.24176/simet.v7i2.752

Boaler, J. (2015). *Mathematical Mindsets: Unleashing Students' Potential Through Creative Math, Inspiring Messages and Innovative Teaching (1st ed.)*. San Fransisco, CA: Jossey-Bass.

Cimen, O. A. (2014). Discussing ethnomathematics: is mathematics culturally dependent?. *Procedia - Social and Behavioral Sciences*, *152*, 523–528. https://doi.org/10.1016/j.sbspro.2014.09.215

Dapa, P. T. N., & Suwarsono, S. (2019). Etnomatematika pada rumah adat Bajawa, Kabupaten Ngada, Propinsi Nusa Tenggara Timur. *Prosiding Sendika*, *5*(1), 35-40. https://eproceedings.umpwr.ac.id/index.php/sendika/article/view/623

Fajriyah, E. (2018). Peran etnomatematika terkait konsep matematika dalam mendukung literasi. *PRISMA, Prosiding Seminar Nasional*, *1*, 114–119. https://journal.unnes.ac.id/sju/index.php/prisma/article/view/19589

Febriantini, K. D. (2022). Perlindungan hukum internasional terhadap warisan budaya Indonesia yang diklaim oleh negara lain. *Jurnal Pendidikan Kewarganegaraan Undiksha*, *10*(3), 206–213. https://ejournal.undiksha.ac.id/index.php/JJPP/article/view/52027

Mar, A., Mamoh, O., & Amsikan, S. (2021). Eksplorasi etnomatematika pada rumah adat Manunis Ka'umnais suku Uim Bibuika Kecamatan Botin Leobele Kabupaten Malaka. *JURNAL MathEdu (Mathematic Education Journal)*, *4*(2), 155–162. https://doi.org/10.37081/mathedu.v4i2.2446

Monikasari, M., & Fitriyanti. (2023). The existence of the malay house 'Limas Potong' in the midst of modernization currents in the city of Batam 1970-2022. *Riwayat: Educational Journal of History and Humanities*,*6*(2), 560–570. https://doi.org/10.24815/jr.v6i2.31445

Nurfauziah, N., & Putra, A. (2022). Systematic literature review: Etnomatematika pada rumah adat. *Jurnal Riset Pembelajaran Matematika*, *4*(1), 5–12. http://doi.org/10.55719/jrpm.v4i1.351

Saputra, E., Mirsa, R., Yanti, P. D., Wulandari, W., & Husna, A. (2022). Eksplorasi etnomatematika pada arsitektur Rumoh Aceh. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, *11*(1), 703-717. https://doi.org/10.24127/ajpm.v11i1.4751

Sari, E. F. P., Somakim, S., & Hartono, Y. (2018). Etnomatematika pada kebudayaan rumah adat Ogan Komering Ulu Sumatera Selatan. *Journal of Medives: Journal of Mathematics Education IKIP Veteran Semarang*, *2*(1), 137-144. https://e-journal.ivet.ac.id/index.php/matematika/article/view/557

Sipahutar, W., & Reflina, R. (2023). Etnomatematika: Pengenalan bangun ruang melalui konteks Museum Negeri Sumatra Utara. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, *12*(1), 1604-1613. https://dx.doi.org/10.24127/ajpm.v12i1.7054