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ETHNOMATHEMATICS ON THE WALL ORNAMENTS OF LEBONG TRADITIONAL HOUSES

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ABSTRACT
This study aims to identify ethnomathematics found in the wall ornaments of Lebong traditional houses. This research is a qualitative descriptive research using an ethnographic approach. This research was carried out in Gunung Alam Village, Pelabai District, Lebong Regency, Bengkulu Province. The focus of this research informant is the head of the traditional and cultural leaders in Lebong district. Data collection is carried out through observation, interviews, and documentation. Observations in this study were made through direct observation of the wall ornaments of Lebong traditional houses, it was identified that there was ethnomathematics in the wall ornaments of Lebong traditional houses. Furthermore, the information is deepened with interviews and documentation. The data analysis process is carried out by means of data collection, data reduction, data presentation, and drawing conclusions. The results of this study show that in the wall ornaments of Lebong traditional houses there are ethnomathematics, namely circles, rotations, reflections and translations. Ethnomathematical activities, namely measuring, counting and designing, are found in the process of making wall ornaments. Furthermore, the findings of this research can be developed into teaching materials such as modules, LKPD, and others based on wall ornaments of Lebong traditional houses.
Keywords*: ethnomathematics; mathematical concepts; wall ornaments.*

ABSTRAK
Penelitian ini bertujuan untuk mengidentifikasi etnomatematika yang terdapat pada ornamen dinding rumah adat Lebong. Penelitian ini merupakan penelitian deskriptif kualitatif dengan menggunakan pendekatan etnografi. Penelitian ini dilaksanakan di Desa Gunung Alam, Kecamatan Pelabai, Kabupaten Lebong, Provinsi Bengkulu. Informan dari penelitian ini adalah ketua adat dan budayawan yang ada di kabupaten Lebong. Pengumpulan data dilakukan melalui observasi, wawancara, dan dokumentasi. Observasi dalam penelitian ini dilakukan melalui pengamatan langsung terhadap ornamen dinding rumah adat Lebong, teridentifikasi terdapat etnomatematika pada ornamen dinding rumah adat Lebong. Selanjutnya diperdalam informasinya dengan wawancara dan dokumentasi. Proses analisis data dilakukan dengan cara pengumpulan data, reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian ini menunjukkan bahwa pada ornamen dinding rumah adat Lebong terdapat etnomatematika yaitu lingkaran, rotasi, refleksi dan translasi. Aktivitas etnomatematika yaitu mengukur, menghitung dan mendesain terdapat pada proses pembuatan ornamen dindingnya. Selanjutnya temuan penelitian ini dapat dikembangkan menjadi bahan ajar seperti modul, LKPD, dan lain-lain berbasis ornamen dinding rumah adat Lebong.
Kata kunci: etnomatematika; konsep matematika; ornamen dinding.

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Introduction

Mathematics is a basic science that plays a very important role in the development of science and technology, because mathematics is one of the scientific ways of thinking that is indispensable to improve logical, systematic, critical, and reasoning thinking (Dewida et al., 2023; Susanti, 2020). Mathematics is a universal science that has great benefits for human life, is the basis for the development of modern technology, and makes an important contribution to various fields of science and the development of human thinking skills (Sukendraa & Sumandya, 2020). Mathematics has great benefits in everyday life, as it helps individuals to think logically, critically, analytically, systematically, and creatively (Marni & Pasaribu, 2022). In order to experience the benefits of mathematics in daily life, students need to get meaningful learning, such as presenting material using a contextual approach, including cultural aspects (Kurniawati et al., 2023). The study that examines mathematics in culture is known as ethnomathematics (Rosita et al., 2020).

Ethnomathematics is the study of mathematics by including a person's local culture or activities to facilitate their understanding (Fairuz et al., 2020; Fauzi et al., 2024; Shavira & Suparni, 2021) (Setiani et al., 2023). Therefore, ethnomathematics is a field that studies how mathematics is adapted to culture (Ledi et al., 2019). Ethnomathematics is "applied mathematics" that develops in identifiable cultural groups such as tribal societies, labor groups, children of a certain age group, and the professional class(Setiani et al., 2023). In summary, ethnomathematics is a type of mathematics that has been integrated into culture (Benindo, 2024). The application developed contains elements of local Lampung culture which motivates students to love local culture and preserve local Lampung culture (Sugiharti, et.al., 2025). The development of ethnomathematics videos is very useful for introducing Indonesian culture (Susanti, et.al., 2022). Cultural objects that contain mathematical concepts in a certain society are called ethnomathematical objects (Amirah & Budiarto, 2022). Bishop argues that ethnomathematical objects are used in mathematical activities such as counting, location, measuring, designing, playing, and explaining (Inuhan et al., 2023; Wewe et al., 2019). Research on ethnomathematics in Indonesian culture shows how mathematical concepts are applied in various cultural motifs, such as batik, weaving, and traditional architecture. Several ethnomathematical studies have investigated decorations, ornaments, typical foods, and cultural buildings in specific areas of Indonesia (Miznurida et al., 2024; Widada et al., 2019; Wulandari et al., 2024).

Lebong, one of the districts in Bengkulu Province, has a very distinctive cultural richness, including its traditional architecture. Lebong traditional houses, with their unique structures and ornaments, are a symbol of the cultural identity of the local community. One of the prominent features of the Lebong traditional house is the ornaments found on the walls.

The people of Reang in ancient times did not paint their houses carelessly, they used clay that was slightly reddish in color, turmeric, lime, soil from burnt snail skin, lime juice and light charcoal. In addition to interesting paint because it is made by the community themselves, this traditional house is decorated with ornaments on the walls of the house, but these ornaments or carvings are not

made carelessly. These ornaments not only beautify traditional houses, but also contain philosophical and mathematical meanings. The ornaments show symmetrical patterns, repetitions, and various geometric shapes that reflect mathematical values in Lebong culture.

Research on ethnomathematics on the wall ornaments of Lebong traditional houses is important to identify ethnomathematics contained in the wall ornaments of Lebong traditional houses. In addition, by understanding the elements related to mathematics concepts, new approaches to mathematics learning can be produced that are more interesting and meaningful for students. In the context of multicultural education, mathematics education is definitely a very relevant field. The ethnomathematical approach utilizes the local culture of the archipelago to provide information and deepening of mathematical material. This approach can increase students' motivation to learn, improve their understanding of mathematics, improve creative problem-solving skills, and instill a sense of tolerance, inclusion, and appreciation for cultural diversity (Shofia Rohmah et al., 2023).

Research Methods

This research is included in qualitative research using an ethnographic approach that aims to identify ethnomathematics contained in the wall ornaments of Lebong traditional houses. The ethnographic approach is a way to provide a detailed picture and analysis of a culture through in-depth field research.

The object for this research is the wall ornament of the Lebong traditional house. The data collected was obtained through 3 data collection techniques, namely observation, interviews and documentation.

The data analysis technique in this study involves interactive and descriptive activities that take place continuously. The four main activities in the analysis used are data collection, data reduction, data display, and conclusion drawn. Data is collected using selected methods to obtain accurate and complete data, such as observations, interviews, and documents. Once the data has been collected, the next step is to select or induce relevant, important, and meaningful data, and to get rid of useless data to explain the purpose of the analysis.

After the data has gone through the reduction process, the next step is the presentation of the data. The presentation of this data is carried out through brief descriptions, tables, and narratives, so that researchers can understand events more clearly and prepare for further analysis steps. The data that has been collected is then re-examined with the informant, allowing for re-verification of the accuracy of the information obtained.

Results and Discussion

The results of observations were obtained from observing and analyzing the shape and seeing how to make Lebong Traditional House Wall Ornaments. The traditional traditional house of the Rejang tribe in Lebong Regency is often called the Lebong traditional house because the majority of the population is the Rejang tribe. This house is a symbol of identity, local wisdom, and cultural heritage that continues to be guarded by the local community (Nurfadillah & Ovriany, 2015)

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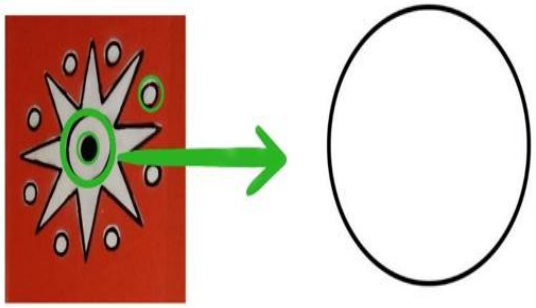
It can be seen that the wall ornaments of the Lebong traditional house show symmetrical patterns, repetition, and various geometric shapes that reflect mathematical values in Lebong culture. After observing the ornaments on the walls of the Lebong traditional house. The results of observation found several ornaments in the form of circular flat shapes and concepts related to geometric transformation, namely rotation, reflection, translation. Presented in Figure 1.

Picture 1. Lebong Traditional House

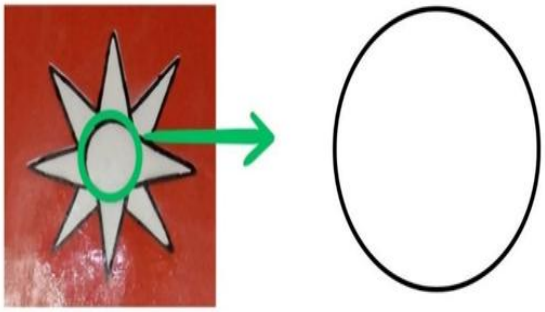
The wall ornament of this Lebong traditional house applies mathematical concepts in the manufacturing process The ornament shows symmetrical patterns, repetition, and various geometric shapes that reflect mathematical values in Lebong culture. The study of these concepts is explained as follows:

1. *Circle*

   On the wall ornaments of the Lebong traditional house, there are many ornaments in the shape of a circle. A circle is one of the flat shapes in geometric materials (Warsitarumanti et al., 2024). The characteristics of a circle include the existence of a diameter that divides it into two equally large parts and a total angle of 180 degrees. In addition, the characteristic of a circle is the fixed diameter and radius that connect the center of the circle with each point on the arc of the circle. A circle has one side with infinite folding symmetry as one of its properties. In addition, the circle also has infinite rotating symmetry presented in Figure 2 – Figure 7.



Picture 2. Circles on ornaments 1



Picture 3. Circles on ornaments 2

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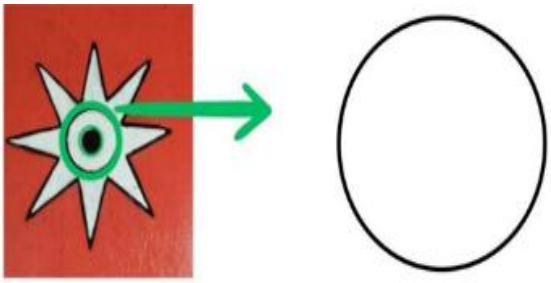
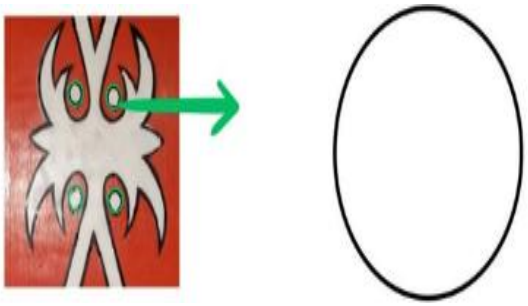
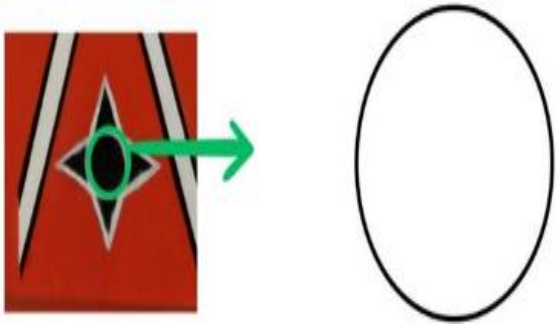


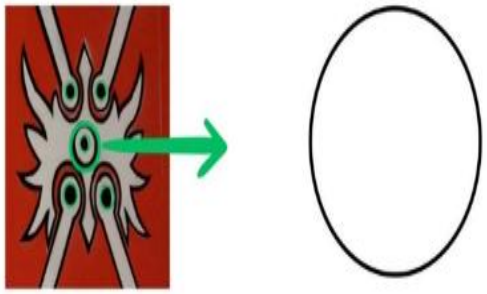
Picture 4. Circles on ornaments 3



Picture 6. Circles on ornaments 5



Picture 5. Circles on ornaments 4



Picture 7. Circles on ornaments 6

Based on Figures 2-7, the results of documentation of the ornaments on the walls of the Lebong traditional house. This motif was made by the local community using traditional tools with simple techniques but full of local wisdom. They made use of a traditional frame made of two pointed bamboo sticks and connected with ropes. One of the bamboos is stuck at one point as a shaft, while the other is given charcoal at the end. A rope is tied from the shaft to the charcoal-fed bamboo, then the rope is pulled tight. When charcoal bamboo is moved around the shaft, it forms a circular trail. This trail is called a circle. The point where the bamboo shaft is located is the center point of the circle, while the length of the rope that connects the shaft to the charcoal bamboo is called the radius of the circle.

Interestingly, the size of these circles is not always standard, but rather adjusted to the needs or width of the available area. This manufacturing process shows how the Lebong people use geometric principles for generations, even with simple equipment. This circle pattern not only serves as a decoration, but also reflects traditional technical and aesthetic skills, while also retaining philosophical meanings related to life and the harmony of nature. This technique is proof that mathematical concepts such as centerpoint, radius, and symmetry have long been applied in local culture, although they have not been formally documented More than decoration, these circle patterns reflect technical skills and traditional aesthetic sense. Behind its beauty, this motif also has a philosophical meaning related to life and the balance of nature. This proves that mathematical concepts have long been present in local cultures, although they have not been formally documented.

In addition to the shape of a circle, ethnomathematical activities can be seen in the process of making it. After being observed, there are measurement and design activities in the manufacturing process. Mathematics activities in

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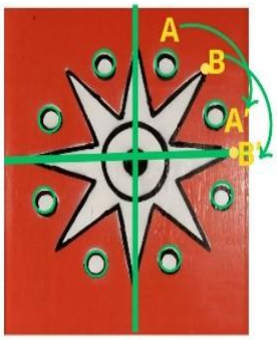
making Lebong traditional house wall ornaments are ethnomathematical activities in measuring and designing activities.

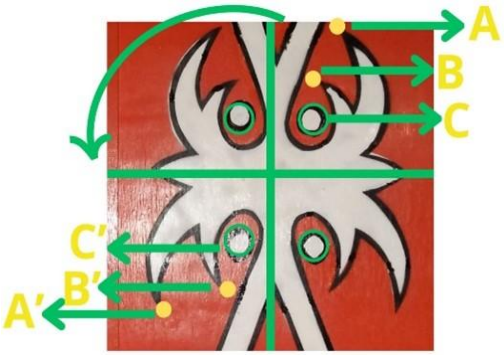
2. *Rotation*

In making Lebong traditional house wall ornaments, the property of geometric transformation that can be used is rotation. Rotation or rotation is a transformation that rotates any point on a plane at a certain angle to a fixed point (Hada, 2021). Rotation can be done clockwise or counterclockwise with positive or negative rotations (Kusuma, 2024). The rotation is presented in Figure 8.

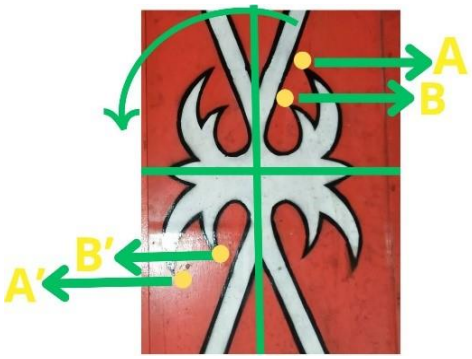


Picture 8. Rotation on ornament 1

Based on the results of the analysis of Figure 8, it was found that the ornaments have a symmetrical pattern that repeats every 45°. This result is also in accordance with the direct measurements made by the researcher when observing the ornament, in addition to that it can be seen in Figure 9 and Figure 10.



Picture 9. Rotation on ornament 6



Picture 10. Rotation on ornament 7

In addition, in Figures 9 and 10, the ornament also has a rotational symmetry of 180°, which means the pattern remains the same after being rotated for half a turn. This result is also in accordance with the direct measurements made by the researcher during observation on the ornament. Thus, it can be concluded that this ornament has a rotation distance of 45° and 180°.

Based on Figure 8-10 on the wall ornaments of the Lebong traditional house, there is a pattern that shows rotation or rotation. The manufacturing process begins with determining the basic design which is usually in the form

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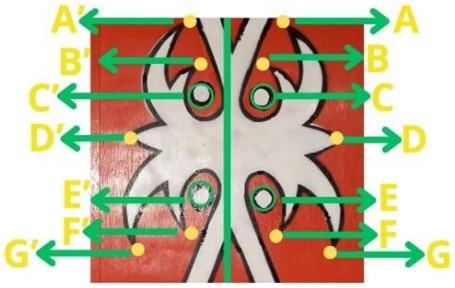
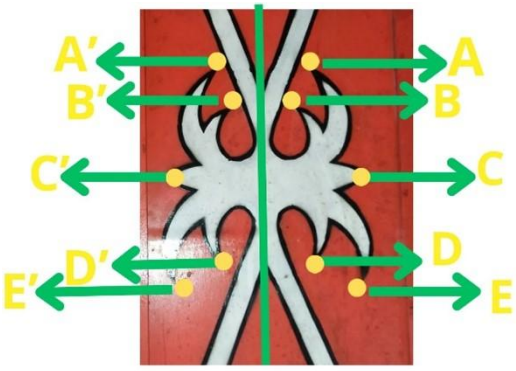
of geometric patterns, traditional motifs, or specific cultural symbols. To keep the shape of the ornament consistent, craftsmen use simple tools such as rulers, compasses, or molds.

3. *Reflection*

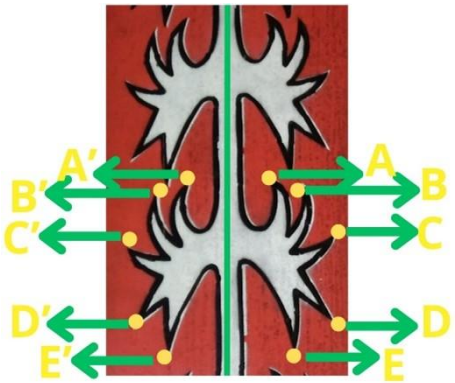
Reflection or mirroring is a transformation that moves each point on a plane by using the mirror shadow properties of the points that are moved (Mahuda, 2020). In the making of the wall ornaments, the Lebong traditional house also depicts reflection. Reflections are presented in Figure 11 - Figure 13.



Picture 11. Reflection on ornament 6



Picture 12. Reflection on ornament 7



Picture 13. Reflection on ornament 8

Based on Figures 11-13, the wall ornaments of the Lebong traditional house are made using special molds to ensure that each design has a uniform shape. In the manufacture of traditional house wall ornaments, craftsmen use pre-made molds to ensure design consistency. These prints are pasted onto

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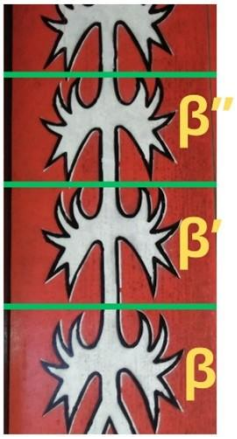
the surface to be decorated, and the craftsman follows the pattern when sculpting.

In making the wall decoration of a traditional house. First, they determine the center line that divides the pattern into two equal parts, so that the decoration is balanced. Then, they ensure that the pattern size on both sides remains the same with the help of traditional measuring tools such as rope. After that, this pattern can be applied from the bottom up or from left to right, resulting in a mirroring pattern. They also start from the easiest part to draw, then replicate the pattern to the other side.

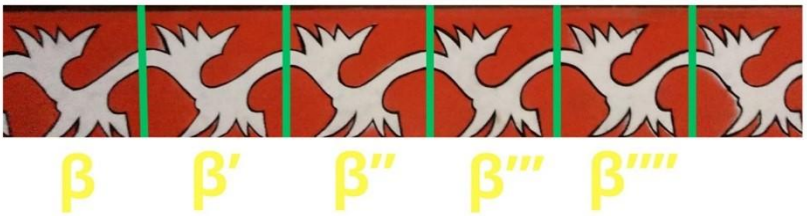
Although prints are used as a guide, craftsmen still have the freedom to add their creative touches, so that each ornament has its own distinctive characteristics without being bound by rigid rules. In this process, there are ethnomathematical activities, namely calculating, measuring, and designing.

4. *Translation*

Translation or shift is a transformation that moves all the points of the wake at the same distance and direction(Taneo et al., 2025). The nature of translation can also be used in making wall ornaments of Lebong traditional houses. The translation is presented in Figure 14 and Figure 15.



Picture 14. Translation on ornament 8



Picture 15. Translation on ornament 9

Based on Figures 14 and 15 of the documentation results. Ornamental making on a traditional house involves the use of a pattern mold that is moved repeatedly at a fixed distance, creating a uniform repeating pattern across the surface. The patterns on traditional house ornaments follow the principle of translation in geometry, where the pattern is shifted without changing the size or direction, creating a neat and harmonious impression. Although there are

no standard rules, craftsmen are free to create according to the design. Interestingly, the number of repetitions of the pattern is often odd, adding to the aesthetic appeal.

Craftsmen usually determine the distance between patterns using simple tools such as ropes or wooden rulers, so that the distance is the same and neat. They start by creating a single baseline, then move it repeatedly to the side or up, without changing its shape or size. To keep the pattern straight, a guideline is made using chalk rope or thread. Sometimes, they also use prints (stamps) so that the pattern is easy to move. As a result, the pattern looks repeated at the same distance, without being rotated or reversed, just shifting in the desired direction, usually sideways or upwards.

This translation principle not only maintains uniformity of patterns, but also simplifies the manufacturing process. With repeated molds, the work is efficient without compromising on beauty. Flexibility in distance and direction of shift allows for design variation even when using the same basic pattern. This technique shows how traditional mathematical concepts and the creativity of artisans go hand in hand, preserving cultural heritage while making room for innovation. The number of repetitions of the pattern is often odd, giving it its own aesthetic touch that enriches the look of the ornament.

The use of this repeating pattern not only maintains the uniformity of the design, but also makes the process more efficient. With the same print, craftsmen can create variations of patterns just by adjusting the distance and direction of shift, so that the resulting work remains unique even though it uses a similar basic pattern. In this process, there are ethnomathematical activities, namely calculating, measuring, and designing.

Conclusions and Suggestions

Based on the data analysis carried out in the process of making Lebong traditional house wall ornaments, there are several ethnomathematical activities. The ethnomathematical activities contained in the making of wall ornaments are the activities of calculating, measuring, and designing in the making of wall ornaments. Insight into the concept of mathematics in the wall ornaments of Lebong traditional houses can be used as objects of culture-based mathematics learning. Culture-based learning helps students explore mathematical concepts in geometry while preserving local culture. Ethnomathematics learning on the wall ornaments of Lebong traditional houses provides a clear explanation of mathematics concepts so that it becomes a daily learning medium.

The researcher suggested that mathematical concepts such as circles, rotation, reflection, and translation found on the wall ornaments of Lebong traditional houses could be an option for teachers to integrate them into mathematics lesson materials. The findings can also be developed into teaching materials for modules and LKPD based on Lebong traditional house wall ornaments.

Reference

Amirah, A., & Budiarto, M. T. (2022). Etnomatematika : Konsep Matematika pada Budaya Sidoarjo. *MATHEdunesa*, *11*(1), 311–319. https://doi.org/10.26740/mathedunesa.v11n1.p311-319

Benindo, F. (2024). *Etnomatematika? Ketika Matematika dan Budaya Bersatu*. Sains Alam. https://warstek.com/etnomatematika/

Dewida, R. M., Bongguk, H., & Ulung, N. (2023). Pelaksanaan Kegiatan Literasi dan Numerasi bagi Peserta Didik Kelas Tinggi Sekolah Dasar. *Jurnal Serunai Administrasi Pendidikan*, *12*(2), 82–91.

Fairuz, F. R., Fajriah, N., & Danaryanti, A. (2020). Pengembangan Lkpd Materi Pola Bilangan Berbasis Etnomatematika Sasirangan Di Kelas Viii Sekolah Menengah Pertama. *EDU-MAT: Jurnal Pendidikan Matematika*, *8*(1), 29–38. https://doi.org/10.20527/edumat.v8i1.8343

Fauzi, L. M., Hayati, N., Satriawan, R., Ali, M., Juaini, M., & Yazid, M. (2024). Investigation of mathematical and educational values in the Bedeyé tradition within the traditional trading system of the Sasak tribal community. *Journal of Honai Mathematics*, *7*(1), 91–102.

Hada, K. L. (2021). Pengembangan Media Pembelajaran Blabak Trarerodi pada Materi Geometri Transformasi: Tahap Expert Review. *Jurnal Pendidikan Matematika (Kudus)*, *4*(2), 155–178. https://doi.org/10.21043/jmtk.v4i2.12047

Inuhan, M., Dahoklory, A. S. K., Lekitoo, J. N., Rupilele, K., MA, R. K., & Sugiarto, S. (2023). Pelatihan Media Pembelajaran Matematika Berbasis Etnomatematika Berbantuan Software Geogebra Di Kecamatan Pulau Lakor. *PAKEM : Jurnal Pengabdian Kepada Masyarakat*, *3*(2), 179–183. https://doi.org/10.30598/pakem.3.2.179-183

Kurniawati, I., Guntur, M., & Agusdianita, N. (2023). Eksplorasi Etnomatematika di Bengkulu sebagai Sumber Belajar Matematika pada Materi Penyajian Data Bentuk Diagram Batang. *EduBase: Journal of Basic Education*, *4*(1), 10–21.

Kusuma, L. W. (2024). Mendeteksi teks dalam gambar berorientasi miring dengan metode Transformasi Hough. *Bit-Tech: Binary Digital - Technology*, *7*(2), 357–365. https://doi.org/10.32877/bt.v7i2.1821

Ledi, F., Kusmanto, B., & Agustito, D. (2019). Identifikasi Etnomatematika pada Motif Kain Tenun Sumba Barat. *UNION: Jurnal Ilmiah Pendidikan Matematika*, *7*(1), 115–124. https://doi.org/10.30738/union.v8i1.5338

Mahuda, I. (2020). Eksplorasi Etnomatematika Pada Motif Batik Lebak Dilihat Dari Sisi Nilai Filosofi Dan Konsep Matematis. *Jurnal Ilmiah Pendidikan Matematika, Matematika Dan Statistika*, *1*(1), 29–38. https://doi.org/10.46306/lb.v1i1

Marni, & Pasaribu, L. H. (2022). Peningkatan Kemampuan Berpikir Kreatif Dan Self-Efficacy Siswa Melalui Pembelajaran Matematika Realistik. *Jurnal Cendekia*, *5*(2), 1902–1910. https://doi.org/10.36987/jes.v9i3.3433

Miznurida, C., Ariani, N. M., Jumr, R., & Ramadianti, W. (2024). Konsep Matematika dalam Tari Andun. *Jurnal Edumath*, *10*(2), 120–131.

Nurfadillah, H., & Ovriany, S. (2015). Pelestarian Rumah Adat Lebong dan Nilai Kearifannya dalam Upaya Meningkatkan Rasa Kepedulian Generasi Muda Terhadap Cagar Budaya Daerah Kabupaten Lebong Provinsi Bengkulu. In *Laporan Penelitian*.Lebong

Rosita, R., Asfida, A., Annur, M. A., & Azis, A. (2020). Eksplorasi Etnomatematika pada Benteng Keraton Buton dan Implikasinya pada Pembelajaran Matematika. *Jurnal Akademik Pendidikan Matematika*, *6*, 86–90. https://doi.org/10.55340/japm.v6i2.260

Setiani, D., Rahmawati, E., & Pramesti, S. L. D. (2023). Peran Etnomatematika dalam Pembelajaran Matematika di Era Society 5.0. *SANTIKA : Seminar Nasional Tadris Matematika*, *3*, 451–461. https://proceeding.uingusdur.ac.id/index.php/santika/article/view/1356

Shavira, L. E., & Suparni. (2021). Penggunaan alat peraga ABD Ajaib dalam pembelajaran matematika realistik berbasis budaya. *AKSIOMA: Jurnal Matematika Dan Pendidikan Matematika*, *12*(2), 225–235.

Shofia Rohmah, N. N., Markhamah, Sabar Narimo, & Choiriyah Widyasari. (2023). Strategi Penguatan Profil Pelajar Pancasila Dimensi Berkebhinekaan Global Di Sekolah Dasar. *Jurnal Elementaria Edukasia*, *6*(3), 1254–1269. https://doi.org/10.31949/jee.v6i3.6124

Sukendraa, I. K., & Sumandya, I. W. (2020). Analisis Problematika dan Alternatif Pemecahan Masalah Pembelajaran Matematika di SMP. *Jurnal Emasains: Jurnal Edukasi Matematika Dan Sains*, *9*(2), 177–186.

Sugiharti, A., Vahlia, I., & Rahmawati, D. (2025). Pengembangan Aplikasi Android Berbasis Problem Based Learning Berorientasi Kebudayaan Lokal Materi Baris Dan Deret Aritmatika. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, *14*(2), 409-423.http://dx.doi.org/10.24127/ajpm.v14i2.10963

Susanti, R. (2022). *Pengembangan Video Tutorial Berbasis Etnomatematika pada Materi Barisan dan Deret* (Doctoral dissertation, Universitas Muhammadiyah Metro).

Susanti, Y. (2020). Pembelajaran Matematika dengan Menggunakan Media Berhitung di Sekolah Dasar dalam Meningkatkan Pemahaman Siswa. *EDISI : Jurnal Edukasi Dan Sains*, *2*(3), 435–448.

Taneo, P. N. L., Nurlaelah, E., & Fatimah, S. (2025). *Analisis Transformasi Geometri dalam Motif Anyaman Daun Lontar Masyarakat Amanuban : Kajian Etnomatematika*. *Media Pendidikan Matematika, 13*(1), 413–428.

Warsitarumanti, S., Suryadi, D., & Nurjanah, N. (2024). Systematic Literature Review: Analisis Learning Obstacle Siswa Smp Pada Materi Lingkaran. *PHI: Jurnal Pendidikan Matematika*, *8*(2), 375. https://doi.org/10.33087/phi.v8i2.418

Wewe, M., Kau, H., Studi, P., & Matematika, P. (2019). Jurnal Ilmiah Pendidikan Citra Bakti Etnomatika Bajawa : Kajian Simbol Budaya Bajawa. *Jurnal Ilmiah*, *6*(2), 121–133. https://doi.org/10.5281/zenodo.3551652

Widada, W., Herawaty, D., Nugroho, K. U. Z., & Anggoro, A. F. D. (2019). *The Scheme Characteristics for Students at the Level of Trans in Understanding Mathematics During Etno-Mathematics Learning*. *253*(Aes 2018), 417–421. https://doi.org/10.2991/aes-18.2019.95

Wulandari, A., Risnanosanti, R., & Ramadianti, W. (2024). Etnomatematika pada bangunan Tabut Bansal Bengkulu. *Math Didactic: Jurnal Pendidikan Matematika*, *10*(1), 46–60. https://doi.org/10.33654/math.v10i1.2653