Artikel Jurnal Honai.docx

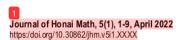
by turnitin03@brennaf.co.uk 1

Submission date: 29-Apr-2024 12:43AM (UTC-0500)

Submission ID: 2365213787

File name: 549-2462-1-RV.docx (703.17K)

Word count: 5835 Character count: 32891





Ethnomathematics Exploration in the *Mappacci* Tradition of the Bugis Ethnic Group

Asdar Ahmad ¹, Muhammad Ammar Naufal ¹, Fajar Arwadi ¹, Jeranah ²

- ¹ Universitas Negeri Makassar, South Sulawesi, Indonesia
- ² Sekolah Tinggi Keguruan dan Ilmu Pendidikan, Yayasan Pendidikan Ujung Pandang, South Sulawesi, Indonesia
- *Correspondence: ammar.naufal@unm.ac.id

Received: 29 January 2022 | Revised: 1 March 2022 | Accepted: 14 March 2022 | Published: 18 March 2022 © The Author(s) 2022

Abstract

The integration of cultural content in mathematics education may enrich learning. This study aimed to identify and describe the mathematical objects in the Mappacci tradition of the Bugis cultural. Using qualitative ethnography, the research identified mathematical patterns in the ritual through observations, interviews, do mentations, and reviews. The data was analyzed using qualitative data analysis consisted of domain analysis, taxonomy analysis, componential analysis, and cultural themes analysis. The result indicates that the utilization of specific odd and even numbers, such as 1, 7, and 9, as well as those observed in the Pacci presentation, symbolize vital life concepts such as perfection and honesty. Geometric shapes, including triangles and rectangles, express stability, and essential virtues, reflecting life's cyclical nature and spiritual guidance. The bijective application of Inai (Pacci) leaves underscores unity and purification, strengthening family ties. The adherence to numbers 30 and 3 in rituals points to the impact of Islamic teachings, which highlight the importance of triadic patterns for religious and social harmony. These elements enrich community and individual lives, blending deep cultural, ethical, and spiritual values.

Keywords: Bugis; Mappacci tradition; mathematics; ethnography; Ethnomathematics

ntroduction

Indonesia has diverse cultures with wisdom and values in local traditions (Fatmawati, 2021). Local traditions encompass a wide range of cultural expressions, including ceremonies, festivals, music, dance, art, cuisine, storytelling, and social norms (Fatmawati, 2021; Fuad et

Commented [A3]: Local (traditional) term should be clearly explained.

Commented [MN4R3]: Explained





Commented [A1]: italic

Commented [MN2R1]: Done

al., 2020). They serve as a means of preserving and celebrating the identity and heritage of different ethnic groups across the Indonesian archipelago. From Sabang to Merauke, the country's archipelago creates cultural diversity with many ethnic groups. The 2020 Central Statistics Agency census found over 300 ethnic groups or 1,340 tribal groups in Indonesia. Indonesian culture includes traditional houses, ceremonies, dress, dances, musical instruments and songs, weapons, and cuisines due to this diversity.

Culture encompasses the entire system of ideas, actions, and creations of human life within a society that people learn (Causadias, 2020). Culture is a vast subject that includes customs, etiquette, and lifestyle. Cultural differences are stark among ethnic groups, especially in Indonesia. South Sulawesi has many tribes and cultures. The Bugis tribes are famous Indonesian ethnicities. South Sulawesi's preserved culture represents ancestors' heritage that descendants must preserve and protect out of respect. Traditions, customs, and habits are usually attached to community beliefs and rituals, forming a culture (Sumiaty et al., 2023; Syarifuddin & Hasyim, 2022). South Sulawesi, rich in cultural diversity, has traditional rituals and entertainment-based cultures. The region is inhabited by four major ethnic groups: the Makassar, Bugis, Toraja, Mandar, and Luwu. Each has a different lifestyle, including the performance of marriage ceremonies (Juanda & Azis, 2022; Sumiaty et al., 2023).

Marriage aims to build a harmonious, prosperous, and happy family (M. Hendri Agustiawan & Nazhifatum Mutahhirah, 2023). The Bugis community values marriage as a cultural heritage. The Bugis marriage system is deeply rooted in customs and one of the most complex due to its pre-, marriage, and post-marriage stages. *Mappacci*, or *Korongtigi*, is a meaningful pre-marriage process for Bugis and Makassar (Azis, 2021; Salam & Lapele, 2020).

The term *Mappacci* is often associated with one of the activities in the Bugis marriage process (Azis, 2021). The community requires the bride and groom to perform *Mappacci* one day before the wedding. Before Islam and Christianity arrived in Bugis, the *Mappacci* tradition dates back generations (Azis, 2021 14) umarni et al., 2023). The *Mappacci* tradition has been passed down through generations, even before the arrival of Islam and Christianity in Bugis land (Idrus et al., 2023). As such, it has become a deeply rooted cultural tradition, seemingly inseparable from Bugis marriage rituals (Isumarni et al., 2023). *Mappacci* is a prerequisite and an essential element in Bugis wedding celebrations, representing a series of festivities prior to the actual wedding ceremony and using symbols or conditions that convey the importance of maintaining family unity and preserving love in marriage (Azis, 2021).

One of the essential elements in discussing education in relation to culture is the integration of cultural content, understood as the integration of multicultural education into the curriculum (Silva, 2022). The content of the curriculum includes addressing how to reduce various prejudices in the racial behavior for certain ethnic groups and how these prejudices can be articulated in the material (Costa et al., 2021; Gaias et al., 2022; Matsuda et al., 2020; Verkuyten et al., 2019). Thus, studying the different cultures of ethnic groups can enrich the mathematical context in educational units.

Mathematics and culture are two inseparable elements. Since its discovery, mathematics has continued to evolve dynamically with the changing times, integrating itself into various

Commented [A5]: Last 5 years

Commented [MN6R5]: Done

Commented [A7]: It is best citing last 5 years

Commented [MN8R7]: Done





aspects of human life (Silva, 2022). This is consistent with the assertion that mathematics is a cultural form that is integrated into all aspects of human life (Gaias et al., 2022). However, there is often a perception in our society that culture and mathematics are separate (Prahmana & D'Ambrosio, 2020; Revina & Leung, 2021). Yet, communities have long engaged in activities that unknowingly use mathematical concepts, such as counting, in their daily lives (Mania & Alam, 2021).

Mathematics and culture a united in the field of study known as "ethnomathematics." (Prahmana et al., 2021) describe ethnomathematics as a bridge between mathematics and local culture. The integration of ethnomathematics into curriculum and pedagogy mirrors developments in mathematics education (Gaias et al., 2022; Prahmana et al., 2021). Ethnomathematics is an application of the contextual approach, which can also be combined with the scientific approach to learning (Nur et al., 2021). In the educational process, especially in the 2013 curriculum, strengthening ethical and moral values among adolescents is one of the goals (Idrus et al., 2023; Sumiaty et al., 2023). Success in building the character of students will contrib 21 o success in building the character of the nation (Costa et al., 2021; Mania & Alam, 2021). The progress of a nation depends on the character of its people, their intelligence, the excellence of their thinking, the synergy of their leaders, and other factors. Implementing the ethnomathematics approach is expected to provide teachers and students with ideas on how to build students' conceptual and procedural mathematical knowledge and ultimately improve their mathematics learning outcomes (Nur et al., 2021; Prahmana & D'Ambrosio, 2020).

Based on an initial analysis of the *Mappacci* tradition, which holds positive meanings and values in its event procession, tools and materials used, and the regularity within the tradition, it is strongly suspected that the meanings, values, and regularities are related to mathematical objects that can be explored to produce a realistic and co 11 tual mathematical material derived from the local wisdom of the Bugis culture. Therefore, the aim of this study is to identify and describe the mathematical objects in the *Mappacci* tradition of the Bugis cultural group in South Sulawesi, Indonesia.

Methods

This study used ethnography with a qualitative approach. Ethnography 2 a research method that describes the culture of a community (Spradley & McCurdy, 1980). Ethnography was chosen as the method in this study because it is consistent with the goals of ethnomathematics, which is the study of the ideas, methods, and techniques in a particular culture from the original perspective of the members of that culture (Prahmana et al., 2021).

The study was conducted in Bone Regency, South Sulawesi Province. Bone Regency represents the Bugis ethnic group in this study. The data sources used were the participants or performers of the *Mappacci-Korongtigi* tradition (the wedding couple, family) and local figure 19 amely, cultural experts in *Mappacci* from the Bugis ethnic group.

The data for this study were collected through observation, interview, documentation, and literature review. (1) Observation was used to get a direct view of the *Mappacci* tradition by





Journal of Honai Math, 5(1), 1-9, April 2022

visiting the place where the Mappacci event takes place without participating in the activities. In this study, the observed elements include the process of performing the ritual and the physical objects that support the performance of Mappacci. An observation guide sheet containing indicators related to the Mappacci tradition was used for observation. (2) Unstructured interviews were used in this study. On these occasions, the researcher interviewed local personalities and participants or organizers of the Mappacci event to collect the necessary data. An interview guide sheet containing indicators related to the Mappacci tradition was used for the interview. (3) Documentation was also used in the study to collect supporting data. Documents were needed to the Mappacci tradition was discussed in this study and detailed documents were needed to uncover it through data collection. Photographs were crucial documents as researchers connected the Mappacci tradition to be analyzed for mathematical concepts and elements contained in it. (4) A literature review was conducted to determine the focus of the study and to ex to even the mathematical aspects of the Mappacci tradition.

After data collection, the data was analyzed using qualitative data analysis consisted of domain analysis, taxonomy analysis, componential analysis, and cultural themes analysis (Sugiyono, 2022). A qualitative study is considered scientific if there is a level of confidence in the data. Therefore, researchers used data validity techniques to take responsibility for the study. Furthermore, to test the validity of the data, the researcher would use the triangulation method (Christensen et al., 2015; Creswell & Creswell, 2023). According to Creswell & Creswell (2023), the triangulation method refers to testing and comparing data from different sources and observing data. The triangulation method can obtain reliable data, and it is done by examining the data obtained from the study through multiple sources and observations. The data sources in this study consist of participant observation, in apth interviews, documentation, and literature review. After that, all the analyzed data were written in the field notes.

Results and Discussion

Based on the data obtained from observations and interviews, data were analyzed using domain analysis, taxonomy analysis, componential analysis, and cultural themes analysis. The results of the data analysis focus on the findings of the basic concepts of mathematics contained in the *Mappacci* procession and the positive values contained in the *Mappaci* process. The general description of the stages of data analysis that have been carried out are:

Domain Analysis

The initial step in processing the data from this study was to analyze the domain of the *Mappacci* cultural object as a traditional ritual that marks the beginning of the wedding ceremony for the Bugis people in South Sulawesi. The ethnomathematics domain that has been analyzed is classified into two domains: (1) materials and equipment in the *Mappacci* procession and (2) activities in the *Mappacci* procession that correspond to the fundamental activities of mathematics.





Commented [A9]: only presents results, discussion is still lacking.

Mathematical concepts have not been well elaborated.

The images displayed are still figural, it has not been well explained.

Include relevant research or research that supports the findings.

Commented [MN10R9]: Done in elaborating mathematical concept in the *Mappacci* process.

Taxonomy Analysis

Furthermore, the findings of the ethnomathematics domain in the *Mappacci* procession were analyzed using taxonomy analysis. The following were considered: (1) Basic mathematical concepts contained in materials, equipment, and activities in the *Mappacci* procession. (2) Mathematical values contained in materials, equipment, and activities in the *Mappacci* procession.

Componential Analysis

The ethnomathematics taxonomy contained in the *Mappacci* procession is further analyzed into components of *Mappacci* materials and equipment, as well as elements of *Mappacci* procession activities. The components of *Mappacci* materials and equipment identified as ethnomathematics studies in this study are as follows: (1) Seven pieces of *Mappacci* hand mat silk gloves; (2) *Mappacci* hand mat pillow; (3) Jackfruit leaves and banana leaves; (4) *Inai* leaf (*Pacci*).

While the components or elements of the *Mappacci* procession activities identified as objects of ethnomathematics studies in this study are as follows: (1) *Mappasau* Botting and *Cemme Passih*; (2) *Khatammal Qur'an*; (3) *Mappacci*; (4) Scattering *Wenno*.

Cultural Themes Analysis

The ethnomathematics study of the *Mappacci* procession for the Bugis people in South Sulawesi reveals the presence of two primary cultural themes: rituals and wedding ceremonies.

The Fundamental Principles of Mathematics and the Numerical Values in Ethnomathematics Domains and Components in *Mappacci* Procession Materials and Equipment

Odd numbers 1, 7, and 9

Odd numbers 1, 7, and 9 are evident in the bride-to-be's handwear during the *Mappacci* process. The *Mappacci* hand mat is a piece of equipment comprising a banana leaf, which serves as the base, and nine jackfruit leaves, which are covered by seven folds of a silk sarong (Figure 1).





Figure 1. Nine jackfruit leaves, one banana leaf, and seven folds of silk sarong for the *Mappacci* hand mat.

The use of certain odd numbers in the 20 ppacci tradition of the Bugis tribe has a meaning of life values that are strongly held for the Bugis tribe community (Azis, 2021). The symbolic meaning of the life that will be lived by the bride and groom is conveyed by the nine jackfruit leaves topped with one banana leaf. The number 1, as the main prime number paired with the number 9 in the number of jackfruit leaves, is a pair of numbers that when added together produces 10. The symbolic interpretation of nine jackfruit leaves on one sheet of banana leaf tops is based on valid data from interviews. The description of the interpretation is that fresh jackfruit leaves are provided as a coating for seven sheets of silk sarong and placed on top of one sheet of banana leaf shoots. An odd number of jackfruit leaves were provided, with nine sheets being prioritized. The combination of one sheet of banana leaf tops and nine jackfruit leaves is indicative of a pair of odd numbers, which in this context represents the concept of perfection in life. In Bugis language, the term tepui, pannoi, or maggendingngi is used to describe the spirit of life or victory. In this context, the word fortune is used to convey the idea of abundance or tassera serai dalle' hallala'na. The us of jackfruit leaves is indicative of the ideals of ancestors or pengahapan, as well as honesty, in the Bugis language, which is called daung panasa. This term means hope, and it is employed in the Mapacci procession so that the hopes of the bride and groom can also be realized (Isumarni et al., 2023). The name of the jackfruit, panasa, is the same as hope.

The seven pieces of silk sarong, patuju/tujui, which means right, useful, or beneficial, are intended to convey the hope that the bride and groom will always do something right, useful, or beneficial (Faridah et al., 2019). The phrase "sini-tujui" is used to express the idea that the couple should always be right. The Bugis concept of Godliness is represented by the seven layers of the sarong, namely: lempu, adatongeng, tetteng, temmappasilaingeng, anyamengkininnawangeng, alabong, and mekkoo. These seven layers represent the seven peaks of happiness. The seven elements of this layer also serve as a guide for those who aspire to assume a leadership role, whether as the head of a family or the head of a government. This



condition is consistently present for seven days a week, guiding new families in navigating their daily lives.

Flat Triangles and Square Patterns

The triangular flat shapes found in the seven folds of the silk sarong used as a hand mat during the *Mappacci* procession (Figure 2). The seven pieces of silk sarong are highly recommended by traditional leaders to be folded in the shape of a triangle, namely an isosceles triangle.



Figure 2. Seven layers of silk sarong formed into an isosceles triangle

The rectangular flat pattern in the use of pillow equipment serves as the fundamental basis for the placement of the hands of the bride and groom during the *Mappacci* procession (Isumarni et al., 2023). The rectangular surface of the pillow is the primary symbol utilized as a representation of hope for the life that the bride and groom will subsequently lead.

The rectangular flat pattern in the use of pillow equipment serves as the fundamental basis for the placement of the hands of the bride and groom during the Mappacci procession (Figure 3). The rectangular surface of the pillow is the primary symbol utilized as a representation of hope for the life that the bride and groom will subsequently lead.



Figure 3. Mappacci pillow base

The fundamental geometric property of a quadrilateral is its flat shape, which is defined by four sides and four corner points. The symbolic interpretation of the quadrilateral shape on the pillow surface of the *Mappacci* base is based on valid data from the interview results. This data indicates that the quadrilateral-shaped pillow surface with four sides (*sulapa eppa*) represents the completeness of life from the four cardinal directions: east, west, north, and south. The pillow has four corner points, which symbolize the four cornerstones of virtue that humans must possess in order to navigate life successfully (Azis, 2021; Nuruddin & Nahar, 2022). These cornerstones are: *kabaraniang* (courage), *akkarungeng* (noble descent), *asugireng* (wealth), and *akkessingeng* (good looks/beauty).



Rotational Transformation Pattern

The arrangement of nine jackfruit leaves on a single banana leaf shoot in a symmetrical circle constitutes a rotation pattern in geometric transformation. This rotation pattern is arranged in layers of two, with the bottom layer comprising five jackfruit leaves in a circle and the top layer comprising four jackfruit leaves arranged in a circle. Both layers exhibit a resemblance to shining sunlight. Additionally, a symmetrical stalk composed of three jackfruit leaves is present on the left and right sides.

The mathematical values inherent in this rotational transformation pattern of nine terraced jackfruit leaves are those of a circle symmetrically arranged. It gives rise to a meaning about life that continues to rotate, sometimes at the peak of life, and at other times on the lowest. However, the most important aspect is that one's life must still provide bright light for others, as the sun symbolizes the circular arrangement of jackfruit leaves. For this reason, the married life that will be lived by the bride and groom must be supported by two symmetrical pillars: harmonious human relationships and relationships with the Almighty Creator based on piety to obtain salvation in the world and the hereafter (Idrus et al., 2023; Sumiaty et al., 2023).

Bijective Functions: One-on-one correspondence

The *Mappacci* procession is dependent upon the availability of *Inai* (*Pacci*) leaves (Figure 4). These leaves symbolize self-cleansing (*Mappacci*) before married life (Isumami et al., 2023). Prior to being applied to the palms of the bride and groom, the *Pacci* leaves are mashed and named into small spheres, which are subsequently placed in a sacred container prepared by the parents of the bride and groom (Azis, 2021). The number of *Pacci* spheres is equalized by the number of family members, relatives, and certain individuals invited to place *Pacci* on the palms of the bride and groom (Nuruddin & Nahar, 2022). The number of *Pacci* spheres is equal to the number of family members invited to give *Pacci*. This represents the principle of one-to-one correspondence or bijective function between the set of *Pacci* rounds that are related to the set of family members who give *Pacci*. The cardinality of these two sets is the same.



Figure 4. Pacci Leaf (Inai)

Commented [A11]: Should be shown first and followed by explanation

Commented [MN12R11]: Done



The positive mathematical values inherent in the use of *Pacci* leaves are the cleansing and purification of the hearts of the bride and groom (Isumarni et al., 2023). This process begins with the cleansing of the hearts of family and one relatives, and continues with the removal of bad thoughts and hostility. *Pacci* balls are stored in a container as a symbol of harmony in family life and community life. This container is used as one of the complementary events of *Tudampenni* or *Pacci* night. The correspondence between the set of *Pacci* balls and the set of family members invited as Pacci givers indicates that every family, whether local or distant, contributes to the formation of a new family that is characterized by a pure heart and actions. This reinforces the family as a space for communication and interaction, which must be maintained for its integrity (Rahima & Mardianti, 2021).

Basic mathematical concepts and mathematical values in the domain and components of ethnomathematics in the fundamental activity of the *Mappacci* procession

The Use of Odd Numbers 3 in the Processions of *Mappasau Botting* and *Cemme Passih*, and Scattering *Wenno*

The Mappasau botting and cemme passih are the inaugural series of rituals within the Mappacci tradition (Figure 5). This event can span three consecutive days preceding the day of the marriage contract (Rahmayuni Saharuddin & Rahman, 2021). During these three days, the bride and groom undergo the traditional treatment of bathing in flowers and using black powder derived from a combination of three principal ingredients, namely glutinous rice, tamarind, and lime. During the three-day period, the bride and groom play a role in the treatment ritual, which involves the use of bedda lotong (black powder made from three main ingredients) and bathing flowers. The purpose of the Mappasau botting procession is to ensure the bride's and groom's self-preservation at home and grooming to look beautiful in the presence of the future husband, relatives, and family. The Mappasau botting event concludes with the Cemme Passih, or flower bath. This ritual is intended to cleanse the body and spirit, and to ask for divine protection and guidance in navigating the challenges of domestic life (Rahmayuni Saharuddin & Rahman, 2021).



Figure 5. The Cemme Passih



At the end of the Mappacci procession, after giving Pacci on the palm of the bride-tobe's hand, the Pacci giver scatters Wenno (fried rice) around the bride-to-be (Figure 6). This wenno scattering is done three times by each Pacci giver.



Figure 6. The process of scattering wenno three times to the bride-to-be

The use of the odd number three in the *Mappasau Botting*, *Cemme Passih*, and *Wenno* scattering rituals signifies the closeness of the bride-to-be's family to the aspect of religious values according to the Islamic religion adopted by the bride-to-be's family. The bride and groom's family believes that all actions that are quantity in nature are prioritized to be done three times. For families who adhere to Islamic teachings. To number three is important (Abduova et al., 2023). This is due to the recommendations of the Prophet Muhammad, who is regarded as a role model for Muslims. These recommendations include the recommended series of ablutions (washing the face three times, washing hands three times, and so on), the recommended eating with three fingers, ordering to honor the mother repeated three times, and the maximum limit of not greeting is also three days.

The symbolic meaning of scattering the *Wenno* three times is that wishes and prayers for goodness are made an odd number of times. Scattering the *Wenno* is accompanied by prayers that ask that the bride and groom may flourish and have sufficient sustenance to live a comfortable life daily (Jumino, 2019).

Factors that Divide the Number 30 in the Qur'an Khatammal Procession

Khatammal Qur'an is the completion of the recitation of the Qur'an. This procession is carried out for the family of the bride and groom who are Muslim (Figure 7). Khatammal Qur'an is performed by a group of people who are specially invited to recite the Qur'an. Khatammal Qur'an is a series of processions that form part of a ritual of self-purification, undertaken after the recitation of the Qur'an has been completed.





Figure 7. Recitation of Qur'an by the Bride-to-be

The procession of khatammal Qur'an commences with the bride-to-be presenting two copies of the Qur'an for her own use and one copy being handed over to the imam (leader of khatammal Qur'an) (Ulfah & Farid, 2023). The procession of khatammal Qur'an commences with the reading of the Qur'an on a number of surahs or verses of the Qur'an, guided by the imam. Subsequently, the imam instructs the participants to conclude their recitation of the Qur'an. The recited Qur'an is known to consist of 30 juz. It is recommended that 2, 3, 5, 6, 10, or 15 people attend the khatammal Qur'an. In the event that there are only two Qur'an readers, each individual is required to read 15 juz of the Qur'an until completion. In the case of three readers of the Qur'an, each individual is expected to read up to 10 juz. Similarly, in the event that there are five readers of the Qur'an, each individual is required to read up to six juz. In the event that there are six readers of the Qur'an, each individual will read up to five juz. In the case of ten readers of the Qur'an, each person will read up to three juz. Finally, in the event that there are fifteen readers of the Qur'an, each individual will read the Qur'an until the completion of two juz. The khatammal Qur'an procession conveys the message 23 at regardless of circumstances, whether joyful or sorrowful, all Muslims must remember the holy verses of the Qur'an and be pleased with Allah. The imam's concluding remarks at the end of the khatammal Qur'an process emphasize that the Qur'an should serve as a guide for the family that will soon be legalized. It is imperative that the Qur'an be read and studied in order to serve as a guide for attaining salvation in this world and in the hereafter (Al-Abed Sukar, 2020).

The Principle of Even Numbers in the Mappacci Procession

The primary function of the *Mappacci* process is the presentation of *Pacci* on the palm of the bride-to-be (Figure 8). This *Pacci* serves as the primary symbol of the bride-to-be's self-purification, symbolizing her transition into a new life within the household with her husband. To further enhance the sacred nature of this *Mappacci* procession, the Bugis community stipulates that the family selected to present *Pacci* is the family of the husband and wife (Isumarni et al., 2023). In some instances, the number of couples invited to participate in the *Mappacci* procession aligns with the social standing of the bride and groom's family. Typically, noble [3] ilies are responsible for preparing 24 couples. However, this expectation is not always met by the family of the bride and groom. In this particular ceremony, it is crucial to ensure that





the number of *Pacci* grains prepared in the container is evenly distributed. This is because the *Pacci* giver is a married couple. If there are six married couples providing *pacci*, then 12 *pacci* are provided. If there are nine married couples providing *pacci*, then 18 *pacci* are provided. If there are 12 married couples providing *pacci*, then 24 *pacci* are provided. If there are 24 married couples providing *pacci*, then 48 *pacci* are provided. Therefore, the number of *pacci* items provided is an even number.



Figure 8. The process of placing the Pacci on both palms of the bride and groom

The symbolic meaning of the *Mappacci* process, which is marked by the placement of *pacci* on both palms of the bride and groom by the families of the couple, is an appreciation of the social status of the relatives and families of the bride and groom (Azis, 2021). In addition, it signifies that the sanctity of life and the cleanliness of the life of the bride and groom's family that will be formed is the concern and responsibility of all families and relatives who have married. It is the responsibility of families to maintain the integrity of the household. A couple represents the completion of the family unit, which must be able to function as a cohesive unit and provide mutual assistance in navigating the challenges of life.

Conclusion

The study examines the use of mathematical and symbolic principles in the Mappacci procession, a traditional ritual of the Bugis tribe. It emphasizes the significance of odd and even numbers, geometric shapes, and bijective functions. The procession incorporates specific odd numbers, including 1,7, and 9, which hold significant life values for the Bugis community. For instance, the Mappacci hand mat employs nine jackfruit leaves, one banana leaf, and seven folds of a silk sarong, symbolizing perfection, honesty, and hope. Geometric shapes like triangles and rectangles utilized during the ceremony represent stability and foundational virtues. The circular arrangement of jackfruit leaves symbolizes life's cyclical nature and the sun's role in providing support and light. The application of Inai (Pacci) leaves, where each sphere corresponds to a family member, reflects unity and purification. Additionally, the use of even numbers in presenting Pacci on the palms of the bride and groom highlights the social status and the sanctity of the upcoming marriage. The number 30 in the Khatammal Qur'an procession and the number 3 in various rituals underscore the adherence to Islamic teachings and the significance of triadic patterns in ensuring religious and social harmony. These elements collectively guide and enrich the Bugis tribe's traditions during the Mappacci procession, weaving cultural beliefs, spiritual meanings, and mathematical principles into the ritual's fabric.



Acknowledgment

The authors are grateful to the sector of Universitas Negeri Makassar for providing the necessary funding and resources. We would also like to thank the participants in this study for their cooperation and willingness to share their experiences.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this manuscript.

References

- Abduova, N., Abduov, M., Kagazbayev, Z., Sateeva, B., & Kadina, Z. (2023). Harmony of Sacred Numbers Functions in the Works of Belles-Lettres from Islamic Perspective. *Journal of Al-Tamaddun*, 18(1), 95–101. https://doi.org/10.22452/JAT.vol18no1.8
- Al-Abed Sukar, M. R. (2020). Islam and its Role in Building Society: An Objective Study.

 Asian Journal of Humanities and Social Studies*, 8(3).

 https://doi.org/10.24203/ajhss.v8i3.6205
- Azis, A. D. (2021). Symbolic Meanings of Equipments Used in Mappacci Buginese Traditional

 Ceremony. *Jurnal Ilmiah Profesi Pendidikan*, 6(1), 108–113.

 https://doi.org/10.29303/jipp.v6i1.167
- Causadias, J. M. (2020). What is Culture? Systems of People, Places, and Practices. Applied Developmental Science, 24, 310–322. https://doi.org/10.31234/osf.io/r9qme
- Christensen, L. B., Johnson, R. B., & Turner, L. A. (2015). Research methods, design, and analysis (12. ed., global ed). Pearson.
- Costa, S., Langher, V., & Pirchio, S. (2021). Teachers' Implicit Attitudes Toward Ethnic Minority Students: A Systematic Review. Frontiers in Psychology, 12. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.712356



- Creswell, J. W., & Creswell, J. D. (2023). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (6th ed.). SAGE Publications, Inc.
- Faridah, S., Faridah, F., & Sutiyono, S. (2019). The Meaning of Symbols and Moral Values in Equipment of Mappaccing Tradition of Bugis Race. Proceedings of the International Conference on Art and Arts Education (ICAAE 2018). Proceedings of the International Conference on Art and Arts Education (ICAAE 2018), Yogyakarta, Indonesia. https://doi.org/10.2991/icaae-18.2019.38
- Fuad, M., Efendi, A., & Muhammad, U. A. (2020). The Use of Pepaccur Local Wisdom for Indonesian Literary Teaching Materials. JPI (Jurnal Pendidikan Indonesia), 9(2), 213. https://doi.org/10.23887/jpi-undiksha.v9i2.22779
- Gaias, L. M., Gal-Szabo, D. E., Shivers, E. M., & Kiche, S. (2022). From Laissez-Faire to Anti-Discrimination: How Are Race/Ethnicity, Culture, and Bias Integrated into Multiple Domains of Practice in Early Childhood Education? *Journal of Research in Childhood Education*, 36(2), 272–295. https://doi.org/10.1080/02568543.2021.1951403
- Idrus, A. M., Nurdin, R., Qayyum, R., Halim, P., & Amir, R. (2023). The Tradition of Mappasikarawa in the Bugis-Makassar Community Marriage: A Study of Islamic Law Philosophy. Samarah: Jurnal Hukum Keluarga Dan Hukum Islam, 7(2), Article 2. https://doi.org/10.22373/sjhk.v7i2.17125
- Isumarni, I., M, U., Hanafi, M., Anjali, A., & Suhandra, I. R. (2023). Investigating the Meaning and Masseges of the Mappacci Wedding Party in Buginess Tradition. *La Ogi: English Language Journal*, 9(1), Article 1. https://doi.org/10.55678/loj.v9i1.843



- Juanda, J., & Azis, A. (2022). The Bugis Culture in Marriage Proposal Communication.
 MOZAIK HUMANIORA, 22(2), 204–218.
 https://doi.org/10.20473/mozaik.v22i2.29628
- Jumino, J. (2019). Symbolic Meanings in Marriage Ceremony of Javanese Culture (Semiotic Analysis). Proceedings of the Proceedings of the First International Conference on Culture, Literature, Language Maintenance and Shift, CL-LAMAS 2019, 13 August 2019, Semarang, Central Java, Indonesia. Proceedings of the First International Conference on Culture, Literature, Language Maintenance and Shift, CL-LAMAS 2019, 13 August 2019, Semarang, Central Java, Indonesia, Semarang, Indonesia. https://doi.org/10.4108/eai.13-8-2019.2290211
- M. Hendri Agustiawan & Nazhifatum Mutahhirah. (2023). Socio-Legal Analysis of Early Marriage Phenomenon during the COVID-19 Pandemic in Jombang Regency. ASKETIK, 7(1), 89–100. https://doi.org/10.30762/asketik.v7i1.962
- Mania, S., & Alam, S. (2021). Teachers' Perception toward the Use of Ethnomathematics Approach in Teaching Math. *International Journal of Education in Mathematics*, Science and Technology, 9(2), 282–298.
- Matsuda, K., Garcia, Y., Catagnus, R., & Brandt, J. A. (2020). Can Behavior Analysis Help Us Understand and Reduce Racism? A review of the Current Literature. *Behavior Analysis* in Practice, 13(2), 336–347. https://doi.org/10.1007/s40617-020-00411-4
- Nur, A. S., Waluya, S. B., Kartono, K., & Rochmad, R. (2021). Ethnomathematics Perspective and Challenge as a Tool of Mathematical Contextual Learning for Indigenous People. *International Journal on Emerging Mathematics Education*, 5(1), Article 1. https://doi.org/10.12928/ijeme.v5i1.17072
- Nuruddin, N., & Nahar, N. (2022). Nilai-Nilai Budaya Upacara Mappacci Dalam Proses Pernikahan Adat Suku Bugis di Desa Labuahan Aji Kecamatan Trano Kabupaten



- Sumbawa. *Jurnal Ilmiah Mandala Education*, 8(2). https://doi.org/10.36312/jime.v8i2.3122
- Prahmana, R. C. I., & D'Ambrosio, U. (2020). Learning Geometry and Values from Patterns: Ethnomathematics on the Batik Patterns of Yogyakarta, Indonesia. *Journal on Mathematics Education*, 11(3), 439–456.
- Prahmana, R. C. I., Yunianto, W., Rosa, M., & Orey, D. C. (2021). Ethnomathematics:
 Pranatamangsa system and the birth-death ceremonial in Yogyakarta.
 https://doi.org/10.22342/jme.12.1.11745.93-112
- Rahima, A., & Mardianti, N. (2021). Nilai-Nilai Sosial Upacara Adat Perkawinan Suku Bugis Wajo Pada Masyarakat Desa Sungai Jambat Kabupaten Tanjung Jabung Timur Provinsi Jambi. Aksara: Jurnal Ilmiah Pendidikan Bahasa Dan Sastra Indonesia, 5(5), 165–173. https://doi.org/10.33087/AKSARA.V512.263
- Rahmayuni Saharuddin, N., & Rahman, A. (2021). The Tradition of Malam Pacar (WENNI MAPPACCI) In Sidenreng Rappang Regency, Timoreng Panua, Panca Rijang District.
 International Journal of Social Service and Research, 1(4), 408–411.
 https://doi.org/10.46799/ijssr.v1i4.57
- Revina, S., & Leung, F. K. S. (2021). Issues involved in the adoption of Realistic Mathematics Education in Indonesian culture. Compare: A Journal of Comparative and International Education, 51(5), 631–650. https://doi.org/10.1080/03057925.2019.1650636
- Salam, N., & Lapele, F. (2020). The Cultural Symbol of Akkorongtigi in the Wedding Tradition of Makassar Society. Wawasan: Jurnal Ilmiah Agama Dan Sosial Budaya, 5, 179–190. https://doi.org/10.15575/jw.v5i2.8317
- Silva, D. (2022). Pre-service teachers' understanding of culture in multicultural education: A qualitative content analysis. *Teaching and Teacher Education*, 110, 103580. https://doi.org/10.1016/j.tate.2021.103580



- Spradley, J. P., & McCurdy, D. W. (1980). Anthropology, the Cultural Perspective. Wiley.
- Sugiyono, S. (2022). Metode Penelitian Kualitatif, untuk penelitian yg bersifat eksploratif, enterpretif, interaktif dan konstruksi. Toko Buku Bandung.
- Sumiaty, M. H., Randalele, C. E., Iye, R., & Nur Abida, F. I. (2023). The value of Tallu Lolona and its influence to the life of Toraja people. *Cogent Social Sciences*, 9(2), 2262775. https://doi.org/10.1080/23311886.2023.2262775
- Syarifuddin, S., & Hasyim, I. (2022). Local Wisdom in South Sulawesi's Folklores. International Journal of Education, 2.
- Ulfah, Y., & Farid, E. K. (2023). Living Qur'an Pesantren: The Process and the Background of Khataman Al-Qur'an Tradition. Santri: Journal of Pesantren and Figh Sosial. https://doi.org/10.35878/santri.v4i1.752
- Verkuyten, M., Thijs, J., & Gharaei, N. (2019). Discrimination and academic (dis)engagement of ethnic-racial minority students: A social identity threat perspective. Social Psychology of Education, 22(2), 267–290. https://doi.org/10.1007/s11218-018-09476-0



Artikel Jurnal Honai.docx

ORIGINALITY REPORT			
8% SIMILARITY INDEX	8% INTERNET SOURCES	3% PUBLICATIONS	2% STUDENT PAPERS
PRIMARY SOURCES			
journalf Internet Sour	kipunipa.org		1 %
ejourna Internet Soul	l.unsri.ac.id		1 %
jurnal.u Internet Sour	npad.ac.id		1 %
4 WWW.jo Internet Soul	urnalfkipunipa.c	org	1 %
5 WWW.M Internet Sour	dpi.com		1 %
6 media.r	neliti.com		1 %
7 repo.ur	diksha.ac.id		<1%
8 pdfs.se	manticscholar.or	g	<1%
9 pasca.u Internet Sour	ns.ac.id		<1%

10	ojs3.unpatti.ac.id Internet Source	<1%
11	e-journal.unair.ac.id Internet Source	<1%
12	staffnew.uny.ac.id Internet Source	<1%
13	www.coursehero.com Internet Source	<1%
14	download.atlantis-press.com Internet Source	<1%
15	journal.ipmafa.ac.id Internet Source	<1%
16	jurnal.univpgri-palembang.ac.id Internet Source	<1%
17	migrationletters.com Internet Source	<1%
18	M. Hum Sumiaty, Christian E. Randalele, Risman Iye, Fithriyah Inda Nur Abida. " The value of and its influence to the life of Toraja people ", Cogent Social Sciences, 2023 Publication	<1%
19	e-journal.hamzanwadi.ac.id Internet Source	<1%
20	journal.lppm-unasman.ac.id Internet Source	<1%

Zakia Tussholeha, Sri Rezeki, Suripah Suripah. "Student Worksheets (LKPD) With Problem Based Learning (PBL) Model On Social Arithmetic Materials In Class VII SMP/MTs", AlphaMath: Journal of Mathematics Education, 2023 Publication
www.escholar.manchester.ac.uk Internet Source
www.researchgate.net Internet Source
1 %

Exclude quotes Off
Exclude bibliography On

Exclude matches

Off

Artikel Jurnal Honai.docx

PAGE 1	
PAGE 2	
PAGE 3	
PAGE 4	
PAGE 5	
PAGE 6	
PAGE 7	
PAGE 8	
PAGE 9	
PAGE 10	
PAGE 11	
PAGE 12	
PAGE 13	
PAGE 14	
PAGE 15	
PAGE 16	
PAGE 17	