TIME CALCULATION METHODS OF THE BUGIS MAKASSAR TRIBE BASED ON THE *KU TIKA* BOOK

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Abstract:

The Bugis tribe has a calendar system written in the *Ku Tika* script of the Bone tribe, which until now is no longer used and is only used as a historical source. Many of today's generations do not know and can no longer be read by various backgrounds in society in general. This manuscript uses the Bugis Lontara language, which differs from today's languages. By using descriptive-analytical literature research, this study concludes that the *Ku Tika* manuscript of the Bone tribe is still relevant to use today. However, adjustments are needed to prepare the number of months in one year, which combines the lunar and solar calendar systems.

Keywords: Time Calculation Method, *Ku Tika* Bone Tribe, Makassar Bugis Tribe

Abstrak:

Suku Bugis memiliki sistem penanggalan yang tertulis di dalam naskah *Ku Tika* Suku Bone yang hingga saat ini tidak lagi digunakan dan hanya dijadikan sebagai sumber sejarah saja. Banyak generasi masa kini yang tidak mengetahui bahkan tidak mampu lagi dibaca oleh berbagai latar belakang masyarakat pada umumnya. Hal ini disebabkan Naskah ini menggunanakn Bahasa Bugis Lontara yang tidak sama dengan bahasa masa kini. Dengan menggunakan penelitian kepustakaan bersifat deskriptif-analitis, penelitian ini menyimpulkan bahwa naskah *Ku Tika* Suku Bone masih relevan digunakan sampai saat ini namun diperlukan adanya penyesuaian dalam penyusunan bilangan bulan dalam satu tahun yang menggabungkan sistem kalender lunar dan solar.

Kata Kunci: Metode Perhitungan Waktu, *Ku Tika* Suku Bone, Suku Bugis Makassar.

A. Introduction

The Bugis people always value and respect all their activities. As in the tradition of respect in the form of a rice harvest festival as a form of respect for agricultural products (rice) is an effort to maintain the balance of the relationship between humans and nature. The Bugis people have been one with nature for hundreds of years, so it is not surprising that they are able to see and read natural phenomena. The observation activity, they then recorded their experiences which were compiled in a book called *Lontara*. The *Lontara*'s book served as a guide when it was given a name, namely *Ku Tika*, *Kotika* or *Pau Kotika*. When looking back at the first period of research on *Ku Tika*, in 1868, BF Matthes had traced *Lontara Ku Tika* and explained tables explaining the direction of the day. One hundred and thirty years later, *Ku Tika* was reintroduced by Kathryn Robinson in 1998 and continued by Roger Tol. In his writings, Tol explains the 20 name days in *Ku Tika Bilangeng Duappulo*, the count of good days and bad days in carrying out wedding ceremonies. His latest research on *Ku Tika* describes three amulets in the collection of the British Library from the kingdom of Bone in 1814 AD. The three amulets are diagrams of *Ku Tika* to determine planting times based on the day of the animal [1]. In determining the day is a tradition in determining the good and bad days in the move.

There are various ways of determining the time of the Bugis Makassar people and this is contained in history in the form of remains in the form of manuscripts. One of them is in *Ku Tika* of the Bone Tribe. However, along with the times and changes in society, the existence of this tradition has changed, not much is known by the public. There are studies that have been conducted such as B.F. Matthes (1868) studied the *Lontara "" Ku Tika* and described the tables explaining the meaning of the day which he called the five *Ku Tika* belonging to a priest named Abd' al-Wahhab [2]. Further research related to cuticle was carried out by Kathryn Robinson in 1998[3]. Then Roger Tol also conducted research on *Ku Tika* manuscripts in the

[1] Rahmatia and Tommy Christomy, 'Eco-Phenomenology in the Local Concept of Buginese Agriculture Based on *Kutika* Manuscript', in *E3S Web of Conferences*, 2020, pp. 1–9 <https://doi.org/10.1051/e3sconf/202021101008>.

[2] Rahmatia Rahmatia and Abdullah Maulani, 'Pemikiran Sains-Sufistik Orang Bugis dalam Naskah *Kutika* Ugi' Sakke Rupa', *Jurnal Lektur Keagamaan*, 19.2 (2021), 481–520 <https://doi.org/10.31291/jlka.v19i2.935>.

[3] Kathryn R and M PaEni, 'Living through Histories: Culture, History, and Social Life in South Sulawesi', *The Journal of Asian Studies*, 32.03 (1998), 469–72.

form of a horizontal scroll resembling a large cassette tape. This research describes the time calculation system of *Ku Tika Bilang Duappulo.*[4]

Furthermore, the *Pananrang* manuscript which contains auspicious days and symbols which is also a study related to *Ku Tika* is also studied using a linguistic-cultural approach. Based on the *Lontara'"pananrang* script, it was found that determining the good time of day and the auspicious time used various symbols such as animal symbols, time symbols, mathematical symbols, and constellation symbols.[5] Furthermore, Furthermore, *Ku Tika* research with historical and ethnographic approaches. This article comprehensively provides a good explanation of the Bugis calendar or calendar system based on the *Ku Tika* text. In addition, in terms of ethnographic research, it was concluded that the time calculation in Bugis society is not only used to determine the time of worship, but also the time to start agricultural activities, shipping navigation, and weather prediction.[6]

However, when it is related to today's life, do we still need to choose and count good and bad days. This is what motivated the author to be interested in research with the aim of peeling back the historical heritage of the Bugis people as a guide for determining good and bad days, the meanings of the days contained in various texts, especially in the *Ku Tika Ugi' Sakke Rupa Bone* manuscript so that it can be known by all audiences as form of culture education in maintaining and maintaining local culture.

B. Method

This research is included in library research, namely research by collecting data and information from books, journals, and other document records related to the time calculation system contained in the *Ku Tika* Manuscript of the Bone Tribe.[7] The approach in this research is descriptive analysis. Library research is a careful and critical investigation in seeking

[4] Roger Tol, 'Rolled Up Bugis Stories: Marriage Advice and the Tale of the Parakeet', *Prima: Review of Indonesian and Malaysian Affairs*, 43.1 (2009), 189–208.

[5] Fahmi Gunawan, 'Good and Teribble Days Symbols in Pananrang Manuscript: A Cultural Linguistics Approach', in *International Conference on Linguistics (ISOL II)* (Padang: Andalas University Padang, 2015), pp. 94–101.

[6] N. Hasanah and D. A. Suriamihardja, 'Astronomy in Buginese-Makassarese Culture Based on Historical and Ethnographical Sources', in *International Symposium on Sun, Earth, and Life (ISSEL)*, 2016, pp. 1–4 <https://doi.org/10.1088/1742-6596/771/1/012018>.

[7] Ibrahim, *Metodologi Penelitian Kualitatif: Panduan Penelitian Beserta Contoh Proposal Penelitian*, 2nd edn (Bandung: CV. Alfabeta, 2018).

information on a collection of literature.[8] Researchers try to explain clearly, systematically, factually and accurately from relevant sources.

C. Result and Discussion

C.1. Syekh Abdul Wahhab al-Bugisi Biography

Syekh Abdul Wahhab al-Bugisi is a scholar of South Sulawesi descent who became a major scholar in Kalimantan and is closely related to the Sammaniyah Muhammad Arsyad al-Banjari order in Kalimantan. Thus, KUSR also shows traces of the legacy of Bugis humans in Kalimantan, especially the transmission of knowledge that is closely related to the network of Haramayn, Bugis and Kalimantan scholars. In addition, the *Ku Tika* calculation method in the KUSR text refers to the books of Middle Eastern scholars, such as Ja'far Ṣadiq, Sheikh Ali Mulawi, Saehata I Belawa, Petta Pakie I Sawito, Sayyidī Muḥyiddīn Ibn al-'Arabī, Sheikh Muhammad Ibn Ali al-Hindi, and the book *Syamsul Ma'arif* by Sayyid Ahmad al-Bunī [9].

Reported in the 2020 Banjar Newspaper explained that Sheikh Abdul Wahab Bugis was one of 4 series of scholars from Tanah Jawi (Malay) who studied in Medina and Egypt. This cleric came from the Bugis, but died and was buried in Tanah Banjar, to be precise in Tungkaran Village, Martapura, Banjar Regency, South Kalimantan. Sheikh Abdul Wahab Bugis or Sheikh Abdul Wahab Bugis al-Banjari with the title Sadenreng Bunga Wariyah was a Bugis scholar, but he did a lot of work until he died in the Land of Banjar. The exact birth of Sheikh Abdul Wahab Bugis is unknown, but it is estimated to be between 1725-1735 AD, given his younger age than Sheikh Muhammad Arsyad al-Banjari or Datu Kelampayan. He is also known as 4 Serangkai from Tanah Jawi (Malay) who studied in Medina and Egypt with 3 other friends, Sheikh Muhammad Arsyad al-Banjari, Sheikh Abdus Shamad al-Palimbani and Sheikh Abdurrahman Mishri al-Jawi [10].

The four series received education from the same teacher who then returned with the same mandate. Abdul Wahab spent his education in Egypt. In the end he was listed

[8] Khatibah, 'Penelitian Kepustakaan', *Iqra': Jurnal Perpustakaan dan Informasi*, 05.01 (2011), 36–39.
[9] Rahmatia and Maulani.
[10] Koran Banjar, 'Syekh Abdul Wahab Bugis, Ulama Asal Bugis yang Bermakam di Tanah Banjar', 2020.

as one of the students of the Sheikh of Islam, Imamul Haramain Alimul Allamah Sheikh Muhammad bin Sulaiman al-Kurdi. The thing that deserves appreciation from Abdul Wahab is the pledge he made with his friends (four in a series) when he wanted to return to his homeland, which further strengthened Abdul Wahab's desire to devote his knowledge to the Land of Banjar. That is why, although Abdul Wahab is a Bugis, he did not return to Pangkajene (South Sulawesi). In Tanah Banjar, Abdul Wahab fought hard and helped Sheikh Muhammad Arsyad preach Islam in the Banjar Kingdom, which at that time was not very developed. Starting from teaching Islam to the royal family, educating dakwah cadres to be sent to various other areas to teach Islam, to building the village of Dalam Pagar, which later developed into a center for spreading and teaching Islam in Kalimantan.[11]

C.2. Time's Name based on *Surek Ugi' Sakke Rupa I* Manuscript

The book entitled *Surek Ugi Sakke Rupa I* was written by Abdul Kadir Mulya and published by the Language Development and Development Center of the Ministry of Education and Culture of the City of Jakarta on July 24, 1993. The book index number is 267 with ISBN 979-459-323-0 in classification PB 398.195 986. This book is kept in the Library of the Center for Development and Language Development of the Ministry of Education and Culture. The subtitles and translations entitled "*Surek Ugi Sekke Rupa I*" (Bugis Literary Anthology) contain (1) Atturiolong's speech, (2) *Rapang ri Lalenna Bone ri Palilikna*, (3) *Pau Kotika*, (4) *Panngajakna Abdullbadi* , and (5) *Panngajakna Nabitta* Muhammad SAW. This manuscript is taken from the book *Boeginesche Chretomatoe*, Volume II, 1872, compiled by Dr. B.F. Mathes. The book is written in "*Lontara*" script and Bugis language. A summary of its contents is as follows (Mulya, 1993). *Pau Kotika* is a science of forecasting, which in this manuscript contains (1) good and unlucky days, (2) good and bad moon astrology for building a house, (3) good days for cutting clothes

[11] Zulfa Jamalie, 'Syekh Abdul Wahab Bugis dan Perjuangan Dakwahnya di Tanah Banjar (1722-1786M)', in *Prosiding Nadwah Ulama Nusantara (NUN) V 2013 Ulama dan Cabaran Idealisme Semasa* (Malaysia: Jabatan Pengajian Arab dan Tamadun Islam Fakulti Pengajian Islam, Universiti Kebangsaan Malaysia, 2013), 303–10.

and cutting nails, (4) the interpretation of the dream, and (5) the address that will occur if certain animals enter the house or village and if certain plants grow in the house [12].

INILAH KATA-KATA RAMALAN	***IANAE PAU KOTIKA***
Pasal. Yang menyatakan hari-hari naas besar di dalam surat perhitungan Petta Matinroe ri malimongan.	*Pasal. Pannessaēngi nahasak marajaē, ri surek bilanna Puatta Matinroē ri Malimongeng.*
Hari kedua belas bulan Muharam, hari naas besar.	*12 Seppulo dua ompokna uleng Muharrang, nahasak maraja.*
Hari kesepuluh bulan Safar, hari naas besar.	*10 Seppulo ompokna uleng Sapparang, nahasak maraja.*
Malam keempat bulan Rabiul Awal, hari naas besar.	*4 Patampeninna ompokna uleng Rabiul Awaleng, nahasak maraja.*
Hari kedua puluh delapan bulan Rabiul Akhir, hari naas besar.	*28 Duappulona arua uleng Rabiul Akhire, nahasak maraja.*
Hari kesatu bulan Jumadil Awal, hari naas besar.	*1 Siweninna ompokna Jumadile Awaleng, nahasak maraja.*
Hari kedelapan bulan Jumadil Akhir, hari naas besar.	*8 Arua ompokna uleng Jumadile Akhire, nahasak maraja.*
Hari kedua puluh delapan bulan Rajab, hari naas besar.	*28 Duappulona arua ompokna uleng Rajjak, nahasak maraja.*
Hari kedua puluh enam bulan Syakban, hari naas besar.	*26 Duappulona enneng ompokna uleng Sabang, nahasak maraja.*
Hari keempat belas bulan Ramadan, hari naas besar.	*14 Seppulona eppa ompokna uleng Ramalang, nahasak maraja.*
Hari kesatu bulan Syawal, hari naas besar.	*1 Seuwana ompokna uleng Sawaleng, nahasak maraja.*

Figure 1 *Surek Ugi Sakke Rupa* I Script

The text, which is only text without pictures, with the following Bugis words, explains the meanings of time which are used as a reference for the activities of the Bugis people in South Sulawesi, especially in Bone. The pictures that have been documented can be a reference for understanding the customs of the Bugis people. In pictures 37 to 42 it can be seen that the book entitled "*Sure Ugi Sakke Rupa I*" consists of chapters. Especially in the article which states that these big ill-fated days are based on the calculation letter *Petta Matinroe ri Malimongan*. The calculation has determined the day of the month and the month is designated as an unlucky day.

[12] Abdul Kadir Mulya, *Surek Ugi Sakke Rupa I* (Jakarta: Pusat Pembinaan dan Pengembangan Bahasa Departemen Pendidikan dan Kebudayaan, 1993).

Table 1 Bugis's Bad Days

Day Number	Month	The Meaning of The Month
Twelve	Muharram	To build a house, it is not good, many difficulties befall the home owner. It is also not good to be occupied with carrying out marriages, causing a lot of debt.
Ten	Safar	To build a house, he is good. Those who have a house get happiness, also get servants. However, it is not good to be occupied with carrying out marriages, often experiencing difficulties.
Four	Rabiul Awal	To build a house, not well. Homeowners will often be sick. If used as a place to live, he quickly becomes confused
Twenty Eight	Rabiul Akhir	To set up a house, fine. Homeowners will prosper. Also obtaining happiness, he is not afflicted with trouble. Except, if occupied carrying out marriages, he often disputes.
One	Jumadil Awal	To set up a house, fine. The owner of the house acquires wealth and servants. However, when it is used as a place to live, its inhabitants turn away from Allah SWT and their wealth is easy to fly and trouble is always overwritten.
Eight	Jumadil Akhir	To build a house, not well. Homeowners will always feel anxious and often experience trouble. It's just that, when it is used as a place to live, it often gets a lot of sustenance from Allah and obtains happiness.
Twenty Eight	Rajab	To build a house, not well. Homeowners always lose their belongings and also often have disputes. If they are used as a place to live, that is not good, very bad.
Twenty Six	Syakban	To set up a house, fine. The owner of the house will be at peace and He will be loved and respected by everyone. If used as a residence, he is safe husband and wife.
Fourteen	Ramadan	To set up a house, fine. Homeowners easy sustenance. He also gets happiness, the arrival of fortune, gold, no trouble overwritten. if it is used as a place to live, many people will get into trouble.
One	Syawal	To build a house, it is not good, there is no blessing. Usually the house is consumed by fire. Those who have short-lived houses, big losses, or unfinished houses. When used as a place to live, many people owe.
Twenty Eight	Zulkaidah	To build a house, it is very good for the owner of the house, his kindness reaches his relatives. He is liked by fellow humans, loves each other between families. If it's occupied, it's

		not good. There are also those who say it is good to be married.
Seven	Zulhijah	To build a house, it's good. The owner of the house gets sustenance and servants. His livestock business is smooth and he gets happiness. When used as a residence, he obtains goodness. He was also obedient to our Prophet Muhammad SAW.

C.3. Time Calculation System Based on the *Ku Tika* Manuscript of the Bugis Bone Tribe

Calculation of time, in this case, is a method of determining the times of one day, or in short, it is called the time calendar. There are many methods used in determining the times. This can be motivated by the background of each expert, whether from community organizations, government, to the community or the leader of a region, such as in ancient times, people marked time based on the experiences of kings or their leaders. The method of reckoning and *rukyah* is a method that is often used in determining the beginning of the month. *Rukyah* is an activity of observing the new moon (crescent) as a sign that a new moon has entered when the new moon has appeared above the horizon.[13]. While reckoning means calculating, calculating, and measuring the motion of the moon and sun in determining the first day of each month.[14]

Calendar means mapping or establishing a calculation system that aims to unite time at a certain time [15]. The word calendar means a system of regularity of time in units for calculating the mass of time numbers. In practical terms, the almanac consists of days, while days are accumulated according to units of seconds to minutes, minutes to hours and hours to days. [16]. In Indonesia, in particular, they know and use various calendars, such as the Hijriyah calendar, the Gregorian calendar, and calendars created

[13] Ahmad Izzuddin, *Ilmu Falak Praktis*, 3rd edn (Semarang: PT. Pustaka Rizki Putra, 2017).

[14] Arwin Juli Rakhmadi Butar-Butar, *Pengantar Ilmu Falak Teori, Praktik, dan Fikih*, 1st edn (Depok: Rajawali Pers, 2018).

[15] Azhari Susiknan, *Ilmu Falak Perjumpaan Khadzanah dan Sains Modern* (Yogyakarta: Suara Muhammadiyah, 2007).

[16] Muh Bashori, *Penanggalan Islam* (Jakarta: PT. Elex Media Komputindo, 2013).

by certain groups of people. As found in the system of calculating the time or calendar in the Makassar Bugis community which is contained in various *Lontara* scripts.

The *Lontara* script is a type of written work by the Bugis Makassar people in ancient times which was written on palm leaves or a kind of Palmyra leaf, using a stick or pen made of rough palm fiber for writing. The *Lontara* script'" also adopts Arabic letters which use the Makassar Bugis language [17]. Daeng Pamatte was the ruler of the kingdom of Gowa during the time of Karaeng Tumapa'risi Kallonna around 1511-1548 who had invented the *Lontara* script. *Lontara* as a means of promoting regional culture, because it contains diverse cultural information in order to create a social system for the preservation of national culture. The importance of this function is so great that "*Lontara*" is still maintained by the Makassar Bugis community [18].

In addition, *Lontara* is considered as an index language and seen as an open mindset that fosters the author's experiences and symbols that reflect ethnic identity. Symbols are a means of conveying messages and assembling a belief system that carries a certain meaning. Symbols are also limited to traditional symbols, things formed by individuals or communities that have a certain meaning and are supported by a group of people [19]. The calendar system or calendar itself is a sign of human civilization that has been used since ancient times. Until now there are three basic types of determining or determining a calendar, namely; Lunar Calendar, Solar Calendar, and Luni-solar Calendar. The three calendar models are the most commonly found calendars. Where the three types are based on the pattern of movement of celestial bodies namely the Moon and the Sun towards the Earth. However, there are several calendars that are not based on astronomical movements like the previous three types of calendars. These calendars refer to an abstract rule in the form of a cycle or cycle that repeats without having any astronomical meaning.

[17] Nurhayati Rahman, *Cinta, Laut, dan Kekuasaan dalam Epos La Galigo: Perspektif Filologi dan Semiotik* (Makassar: Makassar: La Galigo Pers, 2006).

[18] Soerjono and Budi Sulistyowati Soekanto, *Sosiologi Suatu Pengantar (Edisi Revisi)* (Jakarta: Raja Grafindo Persada, 2013).

[19] Nina Siti Salmaniah Siregar, 'Kajian Tentang Interaksionisme Simbolik', *Jurnal Perspektif*, 01.02 (2016) <https://doi.org/10.31289/perspektif.v1i2.86>.

Then, if seen from its form there is also a calendar system which is marked based on written law so that it has the form of a calendar. There is also a calendar system that is only conveyed through moral or verbal messages so that it does not have a form like the existing calendar [20]. One of the ancient works that tells the history of the calendar of the Bugis Makassar tribe is the *Ku Tika* manuscript of the Bone tribe. The term *Ku Tika*, which is known in South Sulawesi as the book of traditional Bugis human calculations, is not entirely native to South Sulawesi. *Ku Tika* comes from Sanskrit, namely *krittika*. Then absorbed by the Malay language into when, *Ku Tika*, or *rejang* which means knowledge or *widya* regarding divination and insight that is not based on race/zodiac[21]. The term *Ku Tika* in the Bugis language has many variants based on each region or tribe, for example the *Makassarese* call it *pitika*, the *Konjo* call it *patikai*, and the Bugis Bones call it *putika*. However, in general, it is known as *Ku Tika* which means good and bad times. *Lontara" Ku Tika* is always written based on experience and repeated observations over a span of 50 to 100 years.

The use of the script is quite dynamic, especially to determine the time to leave the fields in the agrarian tradition or the departure of war fleets and merchant boats in the maritime tradition. Just like the beliefs of the Bugis people in counting days based on *Ku Tika* or predictions from mythology and dreams. The Malays also believe in the counting of good and bad days, as well as the power of mysticism which is symbolic, ritual, or amulet for self-strength. Based on this, it can be said that *Ku Tika* as a concept is not only owned by the Bugis, but also spreads in various areas that intersect with Malay and Sanskrit. The distinguishing aspect between Malay *Ku Tika* and Bugis *Ku Tika* lies in the application or guidelines in calculations that adapt to geographical conditions and social conditions.

Manuscript of *Ku Tika* Suku Bugis Bone (KSBB) or *Ku Tika Ugi' Sakke Rupa* (KUSR) which is in a museum at the National Library of the Republic of Indonesia originating from the Mulawarman Museum in East Kalimantan with manuscript

[20] Ahmad Adib Rofiuddin, 'Penentuan Hari dalam Sistem Kalender Hijriah', *Al-Ahkam*, 26.01 (2016), 118 <https://doi.org/10.21580/ahkam.2016.26.1.878>.

[21] Shaharir Mohamad Zain, 'Kosmologi Malayonesia yang Terungkap dalam Bahasa Melayu', *Jurnal Peradaban*, 9.1 (2016), 11–31.

number 3115. Cover size and manuscript are 24 cm x 17.5 cm. The size of the block of text is irregular in the amount of 132 pages and consists of 16 lines. The pen ink colors are black and red and are still in good physical condition. This text contains the calculation of time and days for the Bugis Bone tribe using Arabic and Bugis in the form of Arabic and *Lontara*" scripts. The manuscript was recorded by Muswar on January 17, 1996. The explanation of *Ku Tika* in the KUSR manuscript is a combination of science and Sufism which is closely related to the mystical-philosophical wahdāt al-wujūd Ibn 'Arabi. The ideology of *Wudiyah* in KUSR illustrates that mystical schools have a strong influence in the Malay-Sulawesi Islamic period at this time. [22].

The development of *Ku Tika* experienced rapid progress along with the entry of Islam in South Sulawesi. The science of traditional calculations, which was originally based only on the quality of the day, has shifted to follow the Hijri calendar system. The day count which consists of 30 or 29 days in a month begins to follow Islamic conventions, but is still adapted to the sound system of the Bugis language. Likewise, the numbering of the Bugis language, which does not have a number symbol, in its development follows the rules for symbolizing Arabic numbers[23]. As for the calculation of time, according to Sheikh Abdul Wahhab al-Bugisi in the *Ku Tika* manuscript of the Bone Tribe, namely the calculation in each day is divided into five times which have their respective meanings. This counting method is called *Ku Tika Pakkita Esso* [24]. The time of *Ku Tika Pakkita Esso* consists of calculating the time of good and bad days in one day which have their respective qualities. As in the following table, the calculation of the *Ku Tika Pakkita Esso* is listed.

Then the method of calculating *Ku Tika* in the 19th century had merged with the breath of Islam which was followed by the influence of several congregations at that time. However, in fact the traditional Bugis counting system was known around the 14th century or much earlier. This period is related to the development of Hindu-Buddhist patterned kingdoms and the development of Sanskrit and Malay in the archipelago. This can be seen in the use of the *Ku Tika Lima* counting system which

[22] Rahmatia and Maulani.
[23] Rahmatia and Maulani.
[24] Muchlis Hadrawi, *Assikalaibineng, Kitab Persetubuhan Bugis*, 5th edn (Makassar: Ininnawa, 2017).

consists of five names, namely *Masoéwara, Kala, Siri, Barahama*, and *Bisinong* and each day has good and bad qualities for various activities. The name of the day has similarities with the names of gods in Hindu belief, such as *Maheswara, Kala, Sri*, and *Brahma*. Even the count of the turn of the year, known as *separiyama*, is equal to the count of one windu, that is, eight years[25]. *Separiyama* or one *pariyama* means the same as eight years, as well as 1 windu is also eight years [26].

Table 2 *Ku Tika Pakkita Esso*

Time / Day	06.00-08.00	08.00-11.00	11.00-12.00	12.00-15.00	15.00-18.00
Ahad	=	+	♀	◘	O
Itsnaini	O	♀	◘	=	+
Tsalatsa	=	O	+	♀	◘
Arba'a	+	♀	◘	O	=
Khamis	=	o	+	♀	◘
Jumu'ah	O	♀	+	=	◘
Sabtu	◘	O	=	+	♀

The symbols in table 2 explain that the clocks listed have their own meaning of time so that these times are the reference for the Bugis community when they want to carry out an activity. The symbol (=) is called *Pole Bola* which means balanced, (+) is called *Tuwo* which means alive, (♀) is called *Uju'* which means dead, (O) is called *Lobbang* which means empty/not good, and (◘) is called *Mallise'* which means useful/full. Based on this, it can be seen that if one day you find the *lobbang* and *uju'* symbols, you are prohibited from doing important things, for example, traveling long distances or wanting to buy something, then that is not permissible because you will be exposed to disaster or anger.

[25] Andi Palloge Nabba, *Sejarah Kerajaan Tanah Bone* (Makassar: Yayasan AL-Mu'allim Sulawesi Selatan, 2006).

[26] Syarifuddin Yusmar, 'Penanggalan Bugis-Makassar dalam Penentuan Awal Bulan Kamariah Menurut Syari'ah dan Sains', *Hunafa: Jurnal Studia Islamika*, 5.3 (2008), 265–86 <https://doi.org/10.24239/jsi.v5i3.175.265-286>.

According to the *Ku Tika* manuscript, the Bugis Bone tribe uses a solar circulation system. However, the naming of months in the calendar uses the Hijri calendar. This can be seen in the KSBB page 12 which uses the names of the Hijriyah months which consist of twelve months. The first month, namely Muharram, then successively Safar, Rabiul Awal, Rabiul Akhir, Jumadil Awal, Jumadil Akhir, Rajab, Sya'ban, Ramadhan, Shawwal, Dzulqa'dah, and Dzulhijjah. As for the calendar in the solar circulation system, the month of Muharram is the first month or month one and so on. Then there are Seven Seven days in One week, namely Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday.

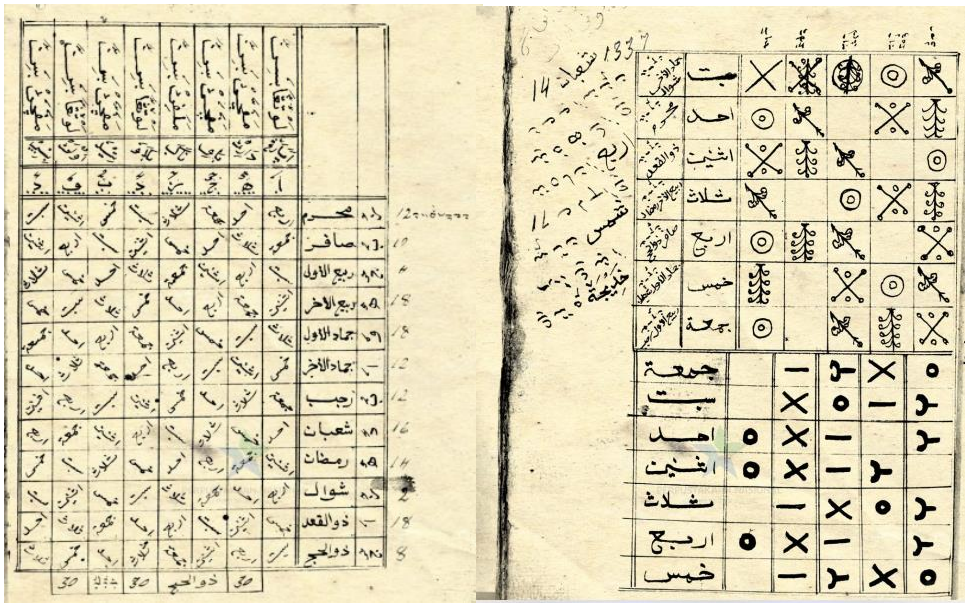

Figure 2 *Ku Tika Suku Bugis Bone* Script

C.3. Calendar System Based on *Lontara* Manuscripts

The time calculation system for making the Bugis ethnic calendar is based on existing *Lontara* texts. The author obtained data from a book entitled "*Billang Taung*" written by Nor Sidin and friends, and found a Bugis calendar system. The most important concept is to take into account the beginning of this dating, which is an important thing based on history that has been done on other calendar systems. The initial system of dragging the Hijri calendar, for example, is recalculated by starting from the starting point by taking the history of the migration journey. Prophet Muhammad SAW as well as what has also happened in the history of the Christian calendar system which is an improvement from the Julian calendar and the

Gregorian calendar. The following is a simulation of the Bugis calendar calculation found in the *Billang Taung* book[27].

The Gregorian calendar coding system is abbreviated as 'M', Hijri is abbreviated as 'H', while the Bugis calendar system is called 'abbreviated as 'B'. Says the word which means 'count' in Makassar and Bugis languages, its meaning refers to the people of South Sulawesi who are interrelated and bound to one another in their historical journey along with their cultural values contained in the rich diversity of languages.

It is also the basis for this that there is a need for historical momentum to start the resumption of the starting point of the calendar system. In this discussion, the author and all parties who assisted in the writing of this book, take the starting point of the "*Bilang Taung*" calendar system with the same starting point as the anniversary of the Province of South Sulawesi, namely, October 19, 1669. The determination of that day was the result of agreement from various parties. Parties, both the government and the people of South Sulawesi as a whole through very in-depth research. For this reason, the anniversary of South Sulawesi Province is a very suitable moment to start the *Bilang Taung* calendar.

If you make adjustments to the calculation on October 19, 1669, you can find out in the *Bilang Taung* calendar system, that is, by looking at every May 16, it is the beginning of the *Bilang Taung* calendar. That every May 16 is 1 S*arawanai*. In *Bilang Taung*, there are twelve months in a year, where the *Bilang Tahun* system is the solar system, namely the calculation of the sun's circulation which has the same system as the Christian calendar. It can be said that *Bilang Tahun* and AD are easily aligned. Every May 16th is 1 *Sarawanai* which is "New Year" in *Bilang Taung*. In this case there is a change of calendar towards the beginning of the next year, for example January 1 in the year AD. In this regard, indirectly the people of South Sulawesi will have a New Year's Eve celebration, as in other communities that have a calendar system.

[27] Nor Sidin, *Billang Taung: Sistem Penanggalan Masyarakat Sulawesi Selatan Berdasarkan Naskah Lontara* (Makassar: Yayasan Turikalenna, 2020).

Table 3 Names of the Months of the Bugis Makassar Calendar

No.	Bugis	Gregorian	Hijri	Number of days
1	*Sarawanai*	January	Muharram	31
2	*Padawaranai*	February	Safar	28
3	*Sujiari*	March	Rabiul Awal	31
4	*Pacingkai*	April	Rabiul Akhir	30
5	*Posiyai*	May	Jumadil Awal	31
6	*Mangasirai*	June	Jumadil Akhir	30
7	*Mangasétiwi*	July	Rajab	31/32
8	*Mangalompai*	August	Sya'ban	31
9	*Nagai*	September	Ramadhan	30
10	*Palagunai*	October	Syawal	31
11	*Bisakai*	November	Dzulqa'dah	30
12	*Jettai*	December	Dzulhijjah	31

This *Billang Taung* book uses a simulation model for making the *Lontara* calendar which takes the starting point, namely May 16, 1669 as the starting point for 1 Sarawanai 1 B. Meanwhile, October 19 coincides with the 4th *Mangasirai* 1 B. The drawing model is made every month from January until December for 2020. For 2020 it currently falls in a long year called a Leap year where February has 29 days. In this case the Bilang Taung system will also experience an additional day in the month of *Mangasetiwi* which in a leap year will total 32 days. The following is a simulation model for making a Gregorian calendar as usual, which is then added to the calendar system for the people of South Sulawesi.

The number 16 is the date in the year AD, as the starting point of the calendar for the month in Bilang Taung. This image was adopted in the book *Billang Taung* Nor Sidin. Based on this, it can be concluded that the Bugis Makassar calendar also recognizes the *Basitah* year system. The number of days in the *Basitah* year cycle (short year)

is 365. Meanwhile, Leap year (long year) is 366 days. The long year in this calendar is added to the month of *Mangasetiwi* or in July of the Christian year. Meanwhile, in AD, there is a long year in February or *Padawaranai* in *Bilang Taung*.

D. Conclusion

The calculation of time based on the *Ku Tika* script of the Bone Tribe in each day is divided into five times which have their respective qualities. This counting method is called *Ku Tika* Pakkita Esso or the five times of the day system. The method of calculating *Ku Tika* in the 19th century had merged with the breath of Islam which was followed by the influence of several congregations at that time. However, in fact the traditional Bugis counting system was known around the 14th century or much earlier. This period is related to the development of Hindu-Buddhist patterned kingdoms and the development of Sanskrit and Malay in the archipelago. This can be seen in the use of the *Ku Tika Lima* counting system which consists of five names, namely *Masoéwara, Kala, Siri, Barahama,* and *Bisinong* and each day has good and bad qualities for various activities. In the past, the Bugis Makassar tribe also used the month name as in the Hijriyah year. The number of days in a one-year cycle consists of 365 days for a short year and 366 days for a long year cycle which repeats every year.

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