THE *TOLAKI* CALENDAR SYSTEM FOR DETERMINING GOOD AND BAD DAYS

Nurul Resky Ridhayanti
Universitas Islam Negeri Alauddin Makassar-Indonesia
ridhayantinurulresky@gmail.com

Abstract:

The *Tolaki* calendar is used to determine good days and bad days by using specific tools to guide weather forecasts. The *Tolaki* calendar is based on observations of the moon in the sky every night. The *Tolaki* people determine good days and bad days based on the meaning of the names of the month's days and choose the exact date and time with *Naga Hari*, *Ku Tika*, and *Bilangari*. By conducting a descriptive analysis, this literature study concluded that the *Tolaki* calendar has the same system as the *Hijri* calendar, which is based on lunar movements. Determining good days and bad days is only a guideline for the *Tolaki* community in carrying out activities. It cannot be used as a reference for implementing worship in Islam.

Keywords: *Tolaki* Calendar; *Tolaki* Tribe; Forecast of Day

Abstrak:

Penanggalan Suku *Tolaki* digunakan dalam menentukan hari baik dan hari buruk dengan menggunakan alat tertentu sebagai pedoman dalam melakukan ramalan cuaca. Penanggalan Suku *Tolaki* dilakukan berdasarkan pengamatan bulan di langit yang dilakukan setiap malam. Masyarakat *Tolaki* menentukan hari baik dan hari buruk berdasarkan makna dari nama-nama hari bulan dan menentukan tanggal dan jam yang tepat dengan *Naga Hari*, *Ku Tika*, dan *Bilangari*. Dengan melakukan analisis deskriptif, penelitian kepustakaan ini menyimpulkan bahwa Penanggalan Suku *Tolaki* mempunyai kesamaan sistem dengan Penanggalan Hijriah yang berbasis pergerakan bulan. Penentuan hari baik dan hari buruk hanya menjadi pedoman masyarakat *Tolaki* dalam melakukan aktivitas dan tidak dapat digunakan sebagai acuan pelaksanaan ibadah umat Islam.

Kata Kunci: Penanggalan, Suku *Tolaki,* Hari Baik, Hari Buruk

A. Introduction

The calendar or what is often known as the calendar plays an important role in people's daily lives that are used practically. The usual calendar systems are the Gregorian and Hijri calendars, but in Indonesia there are various kinds of calendar systems of their own which are still used by some tribes as a form of preserving the culture left behind by their earlier people. One of the tribes in the Southeast Sulawesi region, namely the *Tolaki* Tribe, also has a traditional calendar system that is still used by the local community, but this calendar is only used to find out good and bad days when they want to carry out certain activities. According to Ridho Kimura Soderi, the discussion of the calendar system among astronomers and astronomers is still lacking and this causes the calendar of the tribes in Indonesia to be unknown and even forgotten because it is only studied by certain people. [1].

The *Tolaki* tribe is one of the tribes in the province of Southeast Sulawesi which is the largest ethnic group in this area. The *Tolaki* tribe is a community of people in Southeast Sulawesi, specifically the city of Kendari, Konawe and Kolaka.[2] The uniqueness of the *Tolaki* tribe in determining the calendar is by looking at the appearance of the moon in the night sky, which is then given a name every day or by the terms of the days of the month. The names of the months of the *Tolaki* Tribe are 29 or 30 days and each of these days has a meaning which is then used as a determinant of good and bad days [3]. In addition to the names of the month days, there are *Andala Haebo* (Dragon Hari), *Ku Tika* and *Bilangari*. The three tools used as guidelines are the determinants for knowing good days and good times for the *Tolaki* people.

The purpose of this paper is to provide new knowledge to increase understanding of the traditional calendar system in Indonesia, especially the calendar used by the *Tolaki* tribe. In addition to the calendar system that uses *Ku Tika* to determine auspicious days, this paper also discusses the analysis of the *Tolaki* calendar on astronomy. The answers to these two goals can be a study that can be understood from the *Tolaki* calendar system. This paper argues that the *Tolaki* calendar system is almost the same as the Hijri calendar system because they both use

[1] Ridho Kimura Soderi, 'Penanggalan Mesir Kuno', *Al-Marshad: Jurnal Astronomi Islam dan Ilmu-Ilmu Berkaitan*, 2018 <https://doi.org/10.30596/jam.v4i2.2142>.

[2] Diskominfo Prov. Sulawesi Tenggara, 'Sejarah Provinsi Sulawesi Tenggara', *Pemerintah Provinsi Sulawesi Tenggara*, 2022.

[3] Abdurrauf Tarimana, *Kebudayaan Tolaki*, Cet. II (Jakarta: Balai Pustaka, 1993).

lunar cycles to determine dates. In connection with the Hijri calendar system, the calendar date for the *Tolaki* tribe is determined using the lunar calendar system, where the number of days in a month is around 29 or 30 days.

The calendar in the Indonesian Dictionary is a list of lunar days; almanac; calendar; and calendar (list of days and months of the year)[4]. According to Susiknan Azhari, a calendar or calendar is a system of organizing time units, for the purpose of marking and calculating time in the long term. The calendar is very closely related to human civilization, because it has an important role in determining the time of carrying out activities [5]. The creation of a calendar in the history of astronomy continues to experience development and progress and can survive well in human civilization. So that the calendar is used to determine days and dates that function properly to record, record, and plan important activities, both personal and social life. [6].

Based on the method of calculation, calendars are divided into two groups, namely the Arithmetic Calendar and the Astronomical Calendar. Arithmetic Calendar is a calendar composed of calculations from mathematical/arithmetic formulas. This calendar is fixed with observations of the rotation of celestial bodies but uses a simple formula. While the astronomical calendar uses the determination of the length of the year such as the tropical solar cycle or the synodic cycle of the moon and is based on the positions of the heavenly bodies [7]. There are many calendar systems that have existed from ancient times to modern times. Each of them has different ways, rules, methods of determining dates, and all of them refer to three systems, the Sun (Solar System), Moon (Lunar System), and Sun-Moon (Lunisolar System).[8].

The solar calendar is a calendar whose reference or standard for calculations is the sun, where the sun is used as a reference because it has the characteristic of moving regularly. The

[4] Departemen Pendidikan Nasional, *Kamus Besar Bahasa Indonesia* (Jakarta: Gramedia Pustaka Utama, 2008).

[5] Susiknan Azhari, *Ensiklopedi Hisab Rukyat*, Cet. III (Yogyakarta: Pustaka Pelajar, 2012).

[6] Jayusman, 'Wacana Takwim Urfi dalam Penanggalan Islam', *Jurnal Hukum Islam IAIN Pekalongan*, 7.1 (2009), 18–30; Muhammad Rasywan Syarif and Naif Naif, 'Korelasi Fungsional Kalender Islam dan Pembayaran Zakat', *Pusaka*, 2020 <https://doi.org/10.31969/pusaka.v8i2.419>.

[7] Alaik Ridhallah, 'Sistem Penanggalan Baha'i Persfektif Astronomi', *Al-Afaq*, 2.1 (2020) <https://doi.org/10.20414/afaq.v2i1.2301>.

[8] Abisora Angkat, 'Kalender Hijriah Global dalam Perspektif Fikih', *Al-Marshad*, Vol. 3.2 (2017) <http://dx.doi.org/10.30596%2Fjam.v3i2.1524>.

position of the rising and setting of the sun from east to west changes gradually (gradual) and the times of sunrise and sunset change regularly. The solar calendar uses the Earth's revolution, which rotates around the Sun from west to east, with a speed of 30 km/sec. One complete rotation of 360° takes 365.2425 days. Apart from the revolution, there is the influence of the Earth's rotation, which makes one rotation around 23 hours 56 minutes with an average speed of 108,000 km/hour. These influences cause day and night and the change of seasons. Several types of calendars adopt the solar system, namely: the Egyptian calendar, the Ancient Roman calendar, the Mayan calendar, the Julian calendar, the Gregorian calendar, and the Japanese calendar. [9]

The lunar calendar (Lunar System) uses the month as the basis for its calculations based on the revolution or circulation of the moon. The moon circulates from west to east of the Earth by 360° which takes an average of 27 days 7 hours 43 minutes 12 seconds or about 27.321661 days with the evolution of this month, it is called a sidereal month which is only used in its determination. The time used in the lunar calendar is synodic time, which is the duration required for the month when it is in one non-new phase to the next new moon phase and takes 29.53088 days or 29 days 12 hours 44 minutes 2.8 seconds [10]. The lighting of the Moon differs according to the conditions and time of day, in order to know the classification of the moon in terms of its light, which is measured based on the age of the moon, which are called the phases of the moon. These phases are, new moon (New Moon), First Quarter (First Quarter), Full Moon (Full Moon), third or last quarter (Third Quarter or Last Quarter). The existence of these phases is because the Moon has no light and the light seen from Earth is a reflection of sunlight. The position of the Moon changes based on its shape and size relative to the Sun and Earth [11]. Several types of calendars that use the lunar calendar system are: the Hijri calendar, the Saka calendar, and the Islamic Javanese calendar.

[9] Elva Imeldatur Rohmah, 'Kalender Cina dalam Tinjauan Historis dan Astronomis', *Al-Marshad: Jurnal Astronomi Islam dan Ilmu-Ilmu Berkaitan*, 2018 <https://doi.org/10.30596/jam.v4i1.1934>; Muh. Nashiruddin, *Kalender Hijriah Universal*, Cet. I (Semarang: El-Wafa, 2013).

[10] Nashiruddin.

[11] Arik Permana, Ronny I Wahju, and Deni Achmad Soeboer, 'Pengaruh Fase Bulan Terhadap Hasil Tangkapan Lobster (Panulirus Homarus) di Teluk Pelabuhan Ratu Kabupaten Sukabumi', *Jurnal Teknologi Perikanan dan Kelautan*, 7.2 (2017), 137–44 <https://doi.org/10.24319/jtpk.7.137-144>; Ahmad Izzuddin, *Sistem Penanggalan*, Cet. I (Semarang: Karya Abadi JAya, 2015).

The solar lunar calendar (Lunisolar System) is a combination of the tropical solar cycle and the synodic cycle of the moon. The relationship between the two is based on a 19-year or 235-month cycle approach, which is called the Meton cycle. This Meton cycle explains that the same moon phase will fall on the same date as the Gregorian/Shamsiah calendar after 19 years or 235 months. The origin of the name Meton is taken from an astronomer from Athens[12]. Calculations in one year are the same as the calculations of the solar calendar, but in the turn of the month it is done by looking at the periods of the Moon's phases. The Lunisolar calendar consists of 12 months and in a month there are 29 or 30 days, so there are 354 days in a year. Because this calendar calculation uses the solar system, the number is 11 days earlier than it should be [13].

Several types of calendars that use the solar lunar calendar system (lunisolar system) are: Babylonian calendar, Jewish calendar, Ancient Greek calendar, Chinese calendar, Hindu calendar, pre-Islamic Arabic calendar, and Kibti calendar. The calendar system that is often heard is the Gregorian calendar which originates from the circulation of the sun and the Hijri calendar with the rotation of the moon around its orbit which is a reference for Muslims to determine the times of worship. [14].

The use of the Gregorian calendar was first created under the name Numa Pompilius. This calendar is based on the changing seasons as a result of the apparent circulation of the Sun. Set in a year there are 366 days with March as the starting month because the point of Aries occurs in March. In 46 BC the Numa calendar underwent corrections and was adjusted to the position of the Sun, namely by cutting 90 days from the current calendar and then changing the guidelines that in one year there were 365.25 days. Numbers in a *Basitah* year that are not divisible by four are 365 days old and for leap years are numbers that are divisible by four. The difference in one day is in February. The results of the corrections to this calendar are called the Julian/Julian calendar [15]. The Julian calendar was then experienced by Pope Gregory XIII in 1582 AD where a cycle occurred which caused a shift in the date as an

[12] Moedji Raharto & Novi Sopwan, 'Mengenal Fenomena Langit Melalui Kalender', *Pros. Seminar Pend. IPA Pascasarjana UM*, 2 (2017).

[13] Nashiruddin.

[14] Hikmatul Adhiyah Syam, 'Harmonisasi Penanggalan Bangsa Arab dan Suku Bugis-Makassar', *Elfalaky: Jurnal Ilmu Falak*, 2.1 (2018) <https://doi.org/10.24252/IFK.V2I1.14162>.

[15] Muhyiddin Khazin, *Ilmu Falak dalam Teori dan Praktik* (Yogyakarta: Buana Pustaka, 2004).

indication of the position of the sun. This date shift was revised by Pope Gregory XIII by eliminating ten days which were originally October 4, 1528 AD which the next day became October 14, 1528 AD [16].

The Gregorian calendar in one year has 12 months, namely January, February, March, April, May, June, July, August, September, October, November and December, where the months with 31 days are the 1st, 3rd, 5th months. , 7, 8, 10, and 12, 30 days and the remaining 30 days, except February which has 29 days in Leap Years and 28 days in Basitah Years [17].

Before the introduction of the Hijri calendar, there was a long process of the migration of the Prophet Muhammad. with his followers from Mecca to Medina at the behest of Allah swt. The events of the migration of the Prophet Muhammad. used as the first year of Hijri, but sometimes one calendar system does not match the other calendar systems and raises problems in people's lives. Because of that, the introduction of the Hijri calendar was 17 years after that event. This historical event is used as the first date in the Hijri calendar system, precisely 1 Muharram 1 Hijriah which coincides with July 15 622 AD, starting from the sunset.[18]

The Hijri calendar consists of 12 months with a year of 354 days, 8 hours, 48 minutes, 35 seconds. Meanwhile, the months alternated between 29 days and 30 days. In one Islamic calendar year there are twelve months, each named: Muharram, Safar, Rabiul Awal, Rabiul Akhir, Jumadil Awal, Jumadil Akhir, Rajab, Sha'ban, Ramadan, Shawwal, Zukaidah, and Zulhijjah.[19] The number of 29 and 30 days is determined so that there are no fractional days, so it is determined that even months have 29 days and odd months have 30 days. The month of Zulhijjah is excluded because it has 30 days in a leap year. Every 30 years in the Hijri calendar there are 11 leap years or long years of 355 days and basitah years or short years of 354 days. Leap years are in the order of 2, 5, 7, 10, 13, 15, 18, 21, 24, 26, 29[20].

Southeast Sulawesi is a province in Indonesia, which is located in the southeastern part of Sulawesi Island and Kendari is the capital of this province. Geographically, Southeast

[16] Melta Randy, Media Rosha, and Riry Sriningsih, 'Model Penentuan Hari dari Sebuah Tanggal', *Journal of Mathematics UNP*, 3.2 (2018) <https://doi.org/10.24036/UNPJOMATH.V3I2.4681>.

[17] Izzuddin.

[18] Abdul Kadir, *Formula Baru Ilmu Falak*, ed. by Siti Farida Nurlaili and Achmad Zirzis, Cet. I (Jakarta: Amzah, 2012); Izzuddin.

[19] Arwin Juli Rahmadi Butar-Butar, *Pengantar Ilmu Falak*, Cet. I (Depok: Rajawali Pers, 2018).

[20] Khazin.

Sulawesi is in the southern part of the Equator between 2°45' - 6°15' South Latitude and 120°45' – 124°30' East Longitude and has an area of 38,140 km^2 for land area and 110,000 km^2 for sea area. [21]. Several tribes in Southeast Sulawesi are the Buton Tribe, Muna Tribe, *Tolaki* Tribe, Wawonii Tribe, Wakatobi Tribe, Morenene Tribe, and so on. The *Tolaki* tribe is the largest ethnic group in Southeast Sulawesi, apart from the Buton and Muna tribes. The *Tolaki* tribe is spread across seven districts/cities in Southeast Sulawesi, namely Kendari City, Kolaka Regency, North Kolaka Regency, East Kolaka Regency, Konawe Regency, North Konawe Regency and East Konawe Regency.

The word *Tolaki* comes from the word To, which means a person or human being and Laki, which is male, so *Tolaki* means a human being who has high virility, is brave and upholds high honor, self-respect or self-esteem. The *Tolaki* tribe is one of the largest tribes in Southeast Sulawesi, apart from the Muna and Buton tribes [22]. Each culture within a tribe has its own story related to discussions about nature and its contents. In the *Tolaki* Tribe, the origin of the creation of the universe was when the heavens and the earth were still empty which one day *O Ambu* (God) created *O Ngga* or *nur*, *light*. God looked at the light and it became hot and a fire appeared, God then looked at the fire which then became the sun. God closed his eyes and there was darkness and light. At that time what God did was the universe and everything in it came into existence.

B. Method

The calendar system is in the interests of all humans, including the *Tolaki* people. When they want to carry out a certain activity, they see a good day as conveyed by their oldest people. Discussion of this calendar system needs to be carried out in a more in-depth study so that the *Tolaki* calendar is not only known by certain people and studies of astronomy can be used as a reference for further research. In this study using a type of library research (library research), namely research by collecting data and carried out by reading the literature related to this research [23]. The author uses the *Tolaki* Culture Book and the data is processed using articles

[21] Diskominfo Prov. Sulawesi Tenggara.
[22] Sabar, 'Reaktualisasi Sejarah Sultra: Mengenal Suku Tolaki Sulawesi Tenggara', *Kendari News*, 2022.
[23] Sukardi, *Metodologi Penelitian Pendidikan: Kompetensi dan Praktiknya* (Jakarta: Bumi Aksara, 2010).

in the form of journals related to the *Tolaki* Tribal Calendar System and analyzed descriptively and presented qualitatively.

C. Results and Discussion

C.1. *Tolaki* calendar system

All natural elements that have existed in the world, including the Earth, have space consisting of seven layers bounded by vertical curved lines that form a hemisphere. The earth is also surrounded by a walking Sun. Explanation The sun (*Oleo*) walks around the Earth (*Wuta*), which rises in the east and sets in the west, which then enters the bottom of the Earth *(Wuta*) and rises again the next day. It's the same with the Moon (*O Wula*), but the Sun (*Oleo*) chases after the Moon (*O Wula*) because the Moon (*O Wula*) has tricked him into eating his child. The moon (*O Wula*) carries out a strategy so that life on Earth (*Wuta*) can be saved. The moon (*O Wula*) said "if the sun (*Oleo*) is left alone with its children, of course there will be no life on Earth (*Wuta*) because of the heat." Therefore, the Moon (*O Wula*) tricked the Sun (*Oleo*) and said "O Sun (*Oleo*), eat your children as I did my children". What actually happened was that Bulan (*O Wula*) put all her children into her basket [24].

In one time, includes year, month, and day. In one year is one year of harvest, for six months. In a month there are 29 or 30 days. The following are the names of the months (*O Wula*) from the names of the *Tolaki* tribe, which were translated by Mustajar, a member of the *Tolaki* tribe. [25]

Table 1. The names of the months of the *Tolaki* tribe and their meanings

No.	The names of the moon (*O Wula*)	Meaning
1.	*Mata loso*	Early Appearance
2.	*Riolo*	Second Moon
3.	*Mata Nggawe*	Early Call
4.	*Tombara Kawe*	Last Call
5.	*Merawoesi*	Eroded
6.	*Mehaoe-haoe*	Leaning
7.	*Mata Tindo*	Squint Eyes
8.	*Tombara Tindo*	Squint at the Edge

[24] Tarimana.
[25] Tarimana.

9.	*Mata Nde'oee*	Ratan Eyes
10.	*Tombara Te'oee*	The end of Ratan
11.	*To'eno*	Depend
12.	*Mata Leleanggia*	Shiny Eyes
13.	*Tombara Leleanggia*	Shiny Edge
14.	*Molamboe*	Wild
15.	*Mata Momehe*	Full Moon
16.	*Tombara Nomehe*	The Last Daredevil
17.	*Riolo*	Second Old Moon
18.	*Mata Nggawe*	First Call
19.	*Tombara Kawe*	Last Call
20.	*Merawoesi*	Snatch
21.	*Mehaoe-haoe*	Perch
22.	*Mata Tindo*	Shiny Eyes
23.	*Tombara Tindo*	Squint Eyes
24.	*Mata Nde'oee*	First Nausea
25.	*Tombara Te'oee*	Final Nausea
26.	*To'eno*	Depend
27.	*Mata Leleanggia*	Shiny Eyes
28.	*Tombara Leleanggia*	Shiny Edge
29.	*Wawo Ndowaha*	On Stage
30.	*Mata Mboesoe*	Dark Moon

The *Tolaki* people know the names of the seven days due to the influence of Islam and Christianity. The names of the days in the *Tolaki* tribe are: *Ahli* (Sunday, Sunday), *Sene* (Monday), *Salasa* (Tuesday), *Araba* (Wednesday), *Kamesi* (Thursday), *Duma* (Friday), *Osatu* (Saturday). The time of day and night is divided into 16 sub-times, namely:

Table 2. Time Names and their meanings

No.	Time's Names	Meaning
1.	*Mo'oru-oru mbusu*	After Dawn
2.	*La loloso Oleo*	Sunrise
3.	*Telala Oleo*	Sun arises
4.	*La rumorambi'i*	Midday
5.	*Tonga Oleo*	Noon
6.	*Tekihori*	The sun is leaning to the west
7.	*Kiniwia*	Afternoon
8.	*Roroma*	Dark
9.	*Wingi*	Night
10.	*Mbu'u wingi*	Evening
11.	*Menggau wingi*	Midnight
12.	*Tomotarea monggo aso o manu*	First Rooster's Crow
13.	*Mondongan wingi*	The last third of the night
14.	*Tomotarea monggo ruo o manu*	Second Rooster's Crow
15.	*Tomotarea monggo tolu o manu*	Third Rooster's Crow
16.	*Mengga*	Dawn

One of the cultures of the *Tolaki* people is their calendar system, which is used to determine the best day for carrying out certain activities. The *Tolaki* calendar system is calculated by observing the moon in the sky that rises every night. Armanto, a member of the *Tolaki* tribe, explained that if you look at *Tolaki*'s astronomical perspective regarding the naming in the calendar by referring to the appearance of the Moon in the sky, it can be said that *Tolaki*'s predecessors named it based on what they saw according to the similarity of celestial objects around it. An example from the previous explanation is the name of the first day of *Mata Loso* which means the first appearance, *Mehaoe-haoe* which looks like it is leaning/perched, and *Mata Omehe* means brave eyes which means the full moon.

Based on the explanation of the names of the month of the month of the *Tolaki* tribe, each day has its own meaning and function which is used as a weather forecast, a guide in determining what day of the month is good for carrying out certain ceremonies and starting a business. The meaning of the month names of the *Tolaki* tribe is explained below:

a. *Mata Loso* and *Riolo* Days are rainy days.
b. *Mata Nggawe* and *Tombara Kawe* days are good days to start planting rice in the fields.
c. *Merawoesi* and *Mehaoe-Hoeu* days are good days for setting bird and chicken traps.
d. The days of *Mata Tindo*, *Tombara Tindo*, *Mata Nde'oee*, and *Tombara Te'oee* are long rainy days.
e. *To'eno* Day is a perfect day for hunting.
f. *Mata Leleanggia's* day was already getting hot.
g. *Molamboe* Day, *Mata Momoehe*, *Tombara Nomehe* are good days for building a house and getting married.
h. The days of *Wawo Ndowaha*, *Mata Mbusu* are days of resting at home.[26]

Previously also mentioned the names of the days of the week caused by religious influence. In one week it also has good days, namely *Ahli* (Sunday), *Sene* (Monday), *Araba* (Wednesday), *Duma* (Friday); other than that day it is considered unfavorable, especially

[26] Tarimana.

on *Salasa* (Tuesday) and *Osatu* (Saturday). The *Tolaki* tribe uses 16 sub-times a day and night, which have also been described as used by the *Tolaki* people, starting from waking up when *tomutarea monggo tolu o manu* (crow of the three cocks) to *roroma* (darkness). When *tomutarea monggo tolu o manu* (crow of the three cocks) it's time to get up and get ready to go to the fields or do other work during *mo'oru-oru mbusu* (early morning).

C.2. Method of Determining Good Days of the *Tolaki* Tribe

a. *Andala Haebo* (*Naga Hari*)

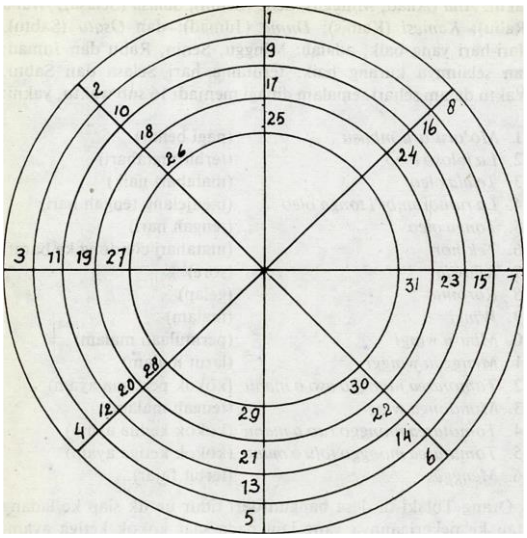

Figure 1. *Naga Hari*

Naga Hari or *Andala Haebo* is a guideline in mythology that the *Tolaki* people believe determines good days. If seen from the picture, *Naga Hari* has eight structural parts that refer to the cardinal directions. The numbering starts from number one which is the right direction from the rising of the sun, namely the east direction. Armanto explained that these eight directions were then divided into four parts only if each was drawn with a straight line. For example, if that day is the 9th, where the number 9 is in groups 1, 9, 17, and 25. If the line on number 1 is pulled straight using a line, thread, stick, wood, or something else, it will meet the group number 5.

How to use the Hari Dragon according to the counterclockwise direction. So the sequence number 1 to number 5 is the start because the 9th is in that row. Because it's counterclockwise, from the number 1 and number 5 line it is pulled towards the number

2 and number 6 line, continuing to the number 3 and number 7 line, and finally the number 4 and number 8 line. Then arrange the rows then it will form:

Table 3. *Naga Hari* Usage Date Order

Sequence	Figure
1st, 9th, 17th, 25th row and 5th, 13rd, 21st, 29th row. (buttom)	
2nd, 10th, 18th, 26th row and 6th, 14th, 22th, 30th.	
3rd, 11st, 19th, 27th row and 7th, 15th, 23rd, 31st row.	
4th, 12th, 20th, 28th and 8th, 16th, 24th. (above)	

An example of its use, on that day, on the 9th we will be traveling to study. Then use Dragon Today by looking at what is a good day in the future, from the method previously described, good days to go to study are the numbers or dates of the 4th, 8th, 12th, 16th, 20th, 24th, and 28th. These numbers are at top position and means that on that date there is no element that hinders it.

b. *Ku Tika*

Ku Tika is the *Tolaki* weekly calendar which is used for auspicious days in one week. This calendar is valid in a month for five weeks. However, Armanto said that in the column there are five weeks which are counted up to 35 days, but in reality it is only up to 30 days.

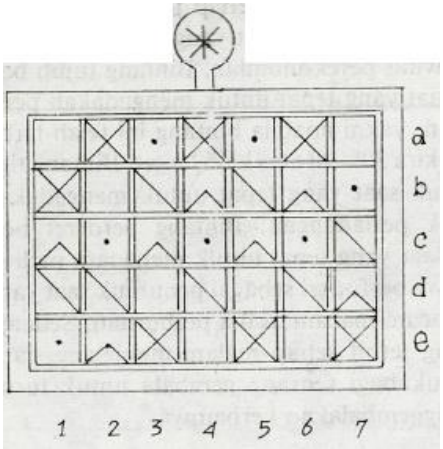

Figure 2. *Ku Tika* Illustration

Table 4. Symbol Description of *Ku Tika*

Figure	Explanation	Meaning
	Clean	Nothing will happen
	Grave	Bad Luck
	People	There will be something that engages the crowd in goodness
	Blood	Blood
	Lie	Lie

The numbers 1 to 7 are symbols to indicate the number of days in a week, where the first week starts from the top row. Letters a, b, c, d, e are symbols which each letter represents one week, because this *Ku Tika* applies a month in a week then: 'a' for 1-7; 'b' for 8-14; 'c' for 15-21; 'd' for 22-29; and an 'e' for 29-35. An example of using this calendar is for example when you are about to get married on the 16th. Then in *Ku Tika* the 16th is in 'c' third row third column two. The second column signifies a crowd, meaning there will be something involving the crowd in goodness. It means that on that day it is a good day because there is goodness in a crowd.

c. *Bilangari*

Bilangari is a daily calendar of the week and hours of the day. Bilangari is a tool that is also used as a guideline for the *Tolaki* tribe, which is different from the *Ku Tika*, which functions to mark the hour and find out when the best time is to carry out certain activities. Below is Bilangari from Konawe Regency.

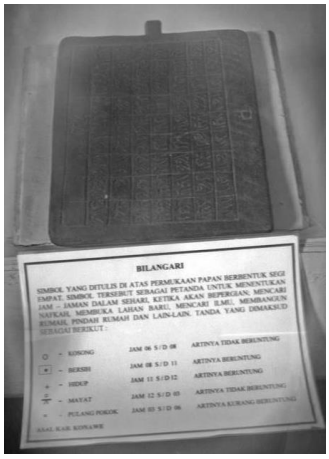

Figure 3. Bilangari

More specifically, Bilangari is a symbol written on a rectangular board. This symbol is used as a sign to determine the hours of the day, when going to travel, make a living, open new land, seek knowledge, build a house, move house, and so on. The Bilangari symbols are also listed in the Bilangari image below.

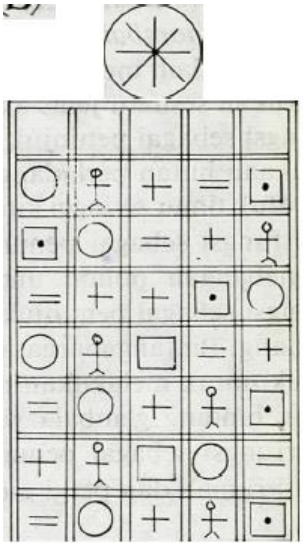

Figure 5. Bilangari Illustration

Table 4. Description of the Bilangari Symbol

Figure	Explanation	Meaning
	Empty	Unlucky
	Corpse	Unlucky
	Crowd/Live	Lucky
	Contain	Lucky
	Return Same / Return principal	Out of Luck

The above information is combined by the author from the *Tolaki* culture book with the Bilangari picture which the author obtained from the Twitter account @adhyrical in April 2013. The first line of the picture starts from Expert's Day (Sunday, Sunday) to the last line of Osatu (Saturday). Then in the first column it starts from the time or hour of the Bilangari calculation. Those times are: (1) 6-8 hours; (2) 8-11 o'clock;

(3) 11-12 hours; (4) 12-3 hours; and (5) 3-6 hours. An example of using Bilangari to find out good times, for example, on the 16th is Saturday. On Saturday (Osatu) in the last line of Bilangari the good times are at 11-12 o'clock and at 3-6 o'clock. Thus a good time on Saturday the 16th is 11-12 in the afternoon and 3-6 in the afternoon.

C.3. Study of Astronomy on the *Tolaki* Calendar

The calendar of the *Tolaki* people is calculated by observing the moon in the sky which rises every night. This is the same as the Hijri calendar, which determines the first month by observing the moon and in one month it is sometimes 29 days and sometimes 30 days. The calendar of the *Tolaki* tribe also uses a Lunar System because the basis for calculating it is based on the revolutions or circulation of the moon, which are 29 and 30 days in total. The conformity of the number of days in a month in the *Tolaki* calendar is stated in the hadith of the Prophet Muhammad. which was narrated by Imam Bukhari.

إِنَّا أُمَّةٌ أُمِّيَّةٌ لَا نَكْتُبُ وَلَا نَحْسُبُ الشَّهْرُ هَكَذَا وَهَكَذَا يَعْنِي مَرَّةً تِسْعَةً وَعِشْرِينَ وَمَرَّةً ثَلَاثِينَ

We are an ummi ummah, who do not usually write and also do not count the number of days in one month like this and this, that is, once there are twenty-nine and once in the next thirty days. (HR. Bukhari).

Determination of good days in the *Tolaki* calendar cannot be used as a basis for carrying out Islamic worship, seeing the *Tolaki* calendar regarding good days and book days is only a guideline for the *Tolaki* people made by *Tolaki* predecessors and used as weather forecasts, a guide in determining what day of the month which is good for carrying out certain ceremonies and starting a business. So, the implementation of worship in Islam such as determining the beginning and end of Ramadan and holidays cannot be equated with the *Tolaki* calendar.

Basically there is no determination of good days and bad days according to Islamic view, because there are no arguments explaining the existence of good days and bad days. Islam views that all days are the same. Regarding the belief about determining good days and bad days or good times and bad times, this is not because there is no basis, but originates from events that occurred in the past and these events have been passed down from the *Tolaki* tribe's predecessors. The Islamic view regarding good days and bad days is highly discouraged because it has been emphasized that denouncing an event is the

same as criticizing Allah SWT. and no one can destroy the masses except Allah swt. Everything that is done and considered good, the reward will be good and vice versa.

D. Conclusion

It turns out that the calendar system of the *Tolaki* tribe is inseparable from the calendar system that is generally known and the determination of auspicious days is almost the same as the determination of auspicious days by the calendar of the tribes in the Sulawesi region. This paper finds that the *Tolaki* calendar system, which is determined by observing the moon that circulates every day, is the same as the Hijri calendar, which uses a lunar calendar system. In determining a good date to do a job or activity using Andala Haebo which refers to the cardinal directions as a monthly calendar as well as *Ku Tika* as a weekly calendar and Bilangari as a daily calendar. The determination of good days in the *Tolaki* calendar cannot be used as a basis for carrying out Islamic worship, seeing the *Tolaki* calendar regarding good days and bad days is only a guide for the *Tolaki* people made by *Tolaki*'s predecessors to determine good days and bad days.

This research is limited to sources which, according to researchers, are still lacking and limited research locations that researchers cannot reach. This research is expected to be able to capture a more diverse understanding. In line with the limitations in this paper, the authors hope that there will be further research that has a large number of respondents with a better understanding and a more successful formulation.

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