



Astronomical Review of the Pandita Board (Wong-Wong and Tike Lime) in Determining Good Days in Banyu Urip Village

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Abstract: *The Pandita board is an ancestral heritage that has functions such as determining a good time for traveling, farming, or performing rituals. The Sasak community knows this board as Warige and is an interesting topic to discuss because the calculation results are quite accurate with modern astronomical calculations, where the calculation system refers to the movement of the Moon. This research aims to understand the system of determining good days using the Pandita Board (Wong-wong and Tike Lime), and analyze it based on the phases of the Moon. This research is field research with a qualitative approach. The data collection methods used are direct observation, unstructured interviews, and documentation using qualitative descriptive analysis methods. The results of this study are the system of determining good days using Papan Pandita seen from 3 concepts, namely, referring to the Rowot Sasak calendar which is the same as the urfi lunar calendar which has a month number of 29 or 30 days, calculating days, dates, and human characters using wong-wong and calculating time or hours using tike lime. Meanwhile, the determination of good days based on Papan Pandita is influenced by astronomical observations of the phases of the Moon. The phases of the Moon influence the determination of dates that are considered good or bad (Kalen Bulan). Kalen Bulan refers to certain phenomena such as eclipses, planetary conjunctions or positions of the Moon that are considered unfavorable.*

Keywords: Astronomy, Pandita Board, Good Day.

Abstrak: *Papan Pandita merupakan warisan nenek moyang yang memiliki fungsi seperti menentukan waktu yang baik untuk bepergian, bertani, atau melakukan ritual. Masyarakat Sasak mengenal papan ini sebagai Warige dan menjadi topik menarik untuk dibahas karena hasil perhitungannya cukup akurat dengan perhitungan astronomi modern, yang di mana sistem perhitungannya mengacu pada pergerakan Bulan. Penelitian ini bertujuan untuk memahami sistem penentuan hari baik dengan menggunakan Papan Pandita (Wong-wong dan Tike Lime), serta menganalisisnya berdasarkan fase-fase Bulan. Penelitian ini merupakan penelitian lapangan dengan pendekatan kualitatif. Metode pengumpulan data yang digunakan adalah observasi langsung, wawancara tidak terstruktur, dan dokumentasi dengan menggunakan metode analisis deskriptif kualitatif. Hasil penelitian ini adalah sistem penentuan hari baik menggunakan Papan Pandita dilihat dari 3 konsep yaitu, mengacu pada kalender Rowot Sasak yang sama dengan kalender hijriah urfi yang memiliki bilangan bulan 29 atau 30 hari, menghitung hari, tanggal, dan karakter manusia menggunakan wong-wong dan menghitung waktu atau jam menggunakan tike lime. Sedangkan penentuan hari baik berdasarkan Papan Pandita dipengaruhi oleh pengamatan astronomi terhadap fase-fase Bulan. Fase Bulan memengaruhi penentuan tanggal yang dianggap baik atau kurang baik (Kalen Bulan). Kalen Bulan merujuk pada fenomena tertentu seperti gerhana, konjungsi planet atau posisi Bulan yang dianggap tidak menguntungkan.*

Kata kunci: Astronomi, Papan Pandita, Hari Baik.

A. Introduction

One of the sciences that has developed since ancient times in the Sasak¹ tribal community is astronomy and astrology which is still adhered to today. Astronomy and Astrology are two different

¹The Sasak people, who are the indigenous inhabitants of Lombok Island, are an inseparable part of the Archipelago, a terminology that has been in use for centuries to describe a sovereign geopolitical and cultural region



fields, although both have the same object, namely studying the circulatory system of celestial bodies.²

Traditional communities still often determine auspicious days for various important activities, such as weddings, house construction, or traditional ceremonies, and these are often related to the movement of celestial bodies, particularly the Moon, with certain beliefs regarding luck or fate. One example of a traditional system that is still maintained in Banyu Urip Village is the use of the Papan Pandita. Papan Pandita, also known as Papan Warige, is a medium in the form of an engraved/written board. Papan Pandita or Warige is often used to determine auspicious days and *Kalen Bulan*³ (unlucky/bad times).

The Papan Pandita system shares similarities with the Hijriah Urfi calendar, which is based on the lunar cycle, where each month consists of 29 to 30 days. The Papan Pandita is also closely related to the Rowot Sasak calendar.⁴ Before learning the method of calculating auspicious days using the Papan Pandita, a Pemangku must first be able to observe the appearance of the Rowot star or Pleiades in the Northeast Horizon at dawn as a marker of the new year and also not be separated from the Bau Nyale event.⁵

Although this system has been used for centuries, whether it can be explained and understood through the lens of modern astronomy is an intriguing question to investigate, considering the advancements in astronomical science. This research aims to examine the system of determining auspicious days used by the community of Banyu Urip Village in light of current astronomical principles. This research will explore how the traditional Papan Pandita system, which is based on the calculation of the Moon's phases and lunar cycles, can be explained using modern astronomical knowledge.

In this case, the author is interested in researching the calendar system or the determination of auspicious days using the Papan Pandita from an astronomical perspective with the research title: "Astronomical Review of Papan Pandita (Wong-wong and Tike Like) in Determining Auspicious Days in Banyu Urip Village, West Praya District, Central Lombok Regency."

with diverse ethnicities, languages, and races. Many studies have been conducted on the grandeur of the archipelago, both in terms of its values and transformations, social systems, arts and culture, nature and its contents, science, and various other aspects. Look at Lalu Ari Irawan Lalu Agus Fathurrahman, "Warige: Traditional Calendar System of the Sasak Ethnic Group," *Presented at the Astronomy Seminar in the Archipelago Culture at Ahmad Dahlan University – Yogyakarta*, 2014, 1.

²Ahmad Musonnif, "Falak Science: Method of Calculating the Initial Time of Prayer, Direction of Qibla, Urfi Calculation and True Calculation of the Beginning of the Month," *Yogyakarta: Teras*, 2011, 5. See also Misbah Khusurur, "The Combination of Hisab and Rukyat as a Method for Determining the Beginning of the Hijri Month," *Al-Wasith Journal: Journal of Islamic Law Studies*, 2020, 5.

³H. Taufik, Interview at Lengkok Mate Banyu Urip Village West Praya District Central Lombok, 27 Desember 2020.

⁴Lalu Ari Irawan, "Warige: The Intersection of Sasak and Nusantara," *Presented at the Sarasehan on the Revitalization of Traditional Knowledge and Traditional Cultural Expressions of Wariga in Mataram*, 1.

⁵Heri Zulhadi, "The Bau Nyale Sasak Customary Calendar System in an Astronomical Perspective," *Thesis, UIN Walisongo Semarang*, 2019, hlm: 3.



B. Methods

This research is field research with a qualitative approach. This qualitative approach is used by researchers to reveal and describe the facts that occur in the field related to the determination of good days using Board Pandita (Wong-wong and Tike Like) with an astronomical review in Banyu Urip Village, West Praya District, Central Lombok Regency. The data collection methods used are direct observation, unstructured interviews, and documentation, while the analysis method used is a qualitative descriptive analysis method.

C. Results and Discuss

1. Pandita Board (*Wong-wong and Take Lime*)

a. History of the Pandita Board

The Sasak people have traditionally been masters of science, especially astronomy. Since ancient times, they have studied a star known as Bintang Rowot, and today, this star is increasingly widely recognized. Through observations of star clusters and the events of the universe, this knowledge is then written on a board called Board Pandita or Board Warge.⁶

In Pandita Board there are Sasak months whose first month is called Bubur Puteq, Bubur Beaq, Maolut, Suwung Penembeq, Suwung Penengaq, Suwung Penutuq, Me'rat, Roah, Puase, Lebaran, Lalang, and Lebaran. In the history of Pandita Board explained by Amaq Not in Pejanggik Village, the term month describes the journey of human life. For example, Puteq porridge is in Amaq (father) and Beaq porridge is in Inaq (mother). When Puteq porridge in the father in the form of sperm unites with Beaq porridge in the mother in the form of blood, it becomes a lump or meat, so the next month is called Maolut.

After passing through the phase of the formation of the clot, cloth enters the month of *Suwung Penembeq*. *Suwung Penengaq*. *Suwung Penutuq* means the silent, lonely month. In the month of *Suwung*, mothers who are experiencing cravings will usually feel quiet, lonely, and always restless. This is a common occurrence among women who are in the process of becoming pregnant and lasts for 3 months.

After passing through the craving phase during the 3 months of *Suwung*, it continues with the month of Me'rat. The month of Me'rat and the month of Roah is the beginning of the process of rotation of the fetus in the womb, initially facing up and then turning to face down. The rotation of the fetus lasts until the 15th of the month of Puase or the month of Ramadan. On the 15th the fetus is facing right. The custom that people do on the 15th of Ramadan until now is turning verses or Nudzulul Qur'an.

After turning the verse, it is only a matter of waiting for the birth of the baby, hence the name *Puase*⁷ month. After the baby is born into the world, we can see for ourselves what the sex of the

⁶Amaq Not, "Interview at Pejanggik Village Central Praya District Central Lombok, 2 April," 2021.

⁷The Month of Puase Means Fasting or Relief after the Baby Is Born into the World. At the Time the Baby Is Born, It Coincides with the Month of Eid. In Sasak Terms, 'Bar' Means the Amniotic Fluid That Comes out along



baby is, either male or female. After knowing the sex, a suitable name is given to the baby. Amaq Not said that the last two months, *Lalang* and Lebaran, do not have the same marker events as the previous months.⁸

This event inspired previous ancestors to print a finding because the process of human formation studied by the elders was a phenomenon that occurred on earth. Therefore, the printers of the Pandita Board observed every human being born into the world. The Pandita Board does not have numbers and letters, but on the board there is a symbol that has its own meaning. The symbol is generated from findings related to the process of human formation and added to the phenomena that occur in Heaven and on Earth, such as one of the bases of the Pandita Board symbol, namely the number 9 which consists of, first, 9 Walisongo, second, 99 numbers of asmaul husna, third, the length of time the mother was pregnant, namely 9 months to 9 days of death and 9 holes in humans.

After successfully collecting the findings related to the process of human formation and other phenomena above, finally the Pandita Board printer carved his findings on pandanus leaves. But after thinking long, pandanus leaves could melt and the writing would not last long. Therefore, the maker of the Pandita Board immediately carved symbols according to the results of his research on wood, which we usually call a board.

After the Pandita Board was successfully printed, all that was left was to think about how to calculate it so that the generations would also easily understand it. After all this time, the Pandita Board was finally famous among the community and passed down from generation to generation. Even today, it is still used by the Sasak community.⁹

The making of the Pandita Board took place on the 1st of the month of Maolut in Pejanggik Village during the imperial period. Board Pandita began to be spread by a grandfather named Papuk Kiok who came from Pejanggik Village in Central Lombok around 30 years after independence.

The science of Pandita Board was popularized by Amaq Not in Pejanggik Village until now. The knowledge of the Pandita Board was also spread by Papuk Gesek, or better known as Papuk Nuranse, in Banyu Urip Village around 50 years after independence, and the Pandita Board was popularized by H. Taufik, or more commonly known as Tuan Ranse until now the Board is still used in Banyu Urip Village, Central Lombok.

b. Terms in the Pandita Board

1) Wong-Wong

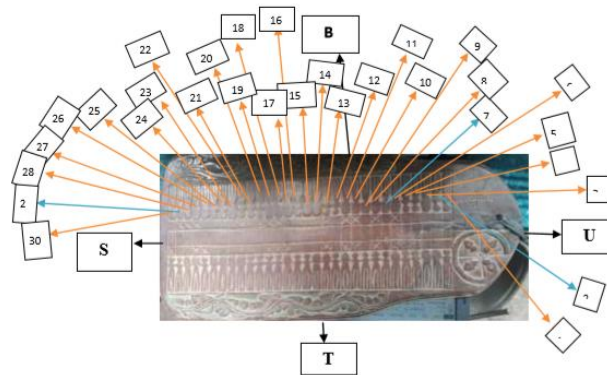
Some people refer to Wong-wong as the Maling calendar. According to the prevailing belief, this medium is used by thieves to avoid obstacles when committing theft. The wong-wong is used to

with the Baby, and 'Ran' Means the Name. Amaq Not, Interview at Pejanggik Village Central Praya District Central Lombok, 2 April 2021.

⁸Amaq Not, Interview at Pejanggik Village Central Praya District Central Lombok, 2 April 2021.

⁹Muhammad Awaludin, "Rowot Sasak Calendar," *AL - AFAQ: Journal of Astronomy and Astrophysics*, 2019, 90.

determine human character and future events. The wong-wong has 150 columns where there are 3 types of features in the wong-wong; a human form with a head, a headless human and an x sign.



In the wong-wong picture above, there are 30 pairs of symbols that are closely related to the number of days in a month, namely 29 and 30 days in the Sasak calendar system and the Hijri calendar. In the picture above, the numbers 1 to 30 is symbolic information from the 1st to the 30th. The column of symbols totaling 30 days is used to find a good day and the image of a pair of symbols in the column is used to read human characters. The column of symbols in the East is the first person or person who is looking for a good day and the symbol in the West column is the person looking for a good day is aiming for. The following is an explanation of the meaning of each pair of symbols:¹⁰

- The first date is called *ayu* time because if the date has the same head, it is considered a good and auspicious day.
- The second date, called *ale* time, where the first person is headless, means the day is not good and the first person will face calamities.
- The third date, both headless, showing selfishness and lack of concern for others, is called *menge* time.
- The fourth date, both of them have heads but still do not get results because that day is called *mengkem* time, meaning lazy and ignorant. Although there is an asterisk, it is not visible.
- The fifth date is the same as the previous 1st date.
- The sixth date, the time of the second *ale*, indicates laziness in seeking fortune despite opportunities, as the symbol is headless.
- The seventh date, the time of the second meeting, the first person has a head and the second does not, meaning there is luck but only good at talking without results.

¹⁰Lalu Ari Irawan, "Warige: The Intersection of Sasak and the Archipelago" Delivered at the Sarasehan on the Revitalization of Traditional Knowledge and Traditional Cultural Expressions of Wariga in Mataram", hlm: 3.



- h) On the eighth day, the second mengkem, the first person has a lot of wealth and the second person gets half of the first person.
- i) Ninth day, second week ayu, the first person has a head and the second person does not, it is advisable not to do anything because luck is minimal.
- j) Tenth date, although ale time, there is a lucky symbol (x) that gives fortune.
- k) The eleventh date, even though both of them are headless, they still get their fortune because that day is the time of menge with the symbol x or luck.
- l) On the twelfth, even though both have heads, it is difficult to do anything because that day is the time of mengkem.
- m) On the thirteenth, the first person is headless, and the second has a head, meaning that the second person gets more fortune. The day is ayu time.
- n) On the fourteenth, both of them will be without luck and will not get any fortune, because it is the time of ale.
- o) On the fifteenth, the first person has a head and the second person has no head, both of them are just good at talking without making any fortune.
- p) The sixteenth, even though both of them had heads, did not get results because it was the day of the camp.
- q) On the seventeenth, both are headless, but the first person gets more fortune because it is the time of ayu.
- r) On the eighteenth, the first person has a head and the second does not. If there is any fortune, there will be a commotion between them, and the day is counted as ale time.
- s) The nineteenth, the first person has a head and the second person does not, so the possibility of getting a fortune is small and is counted as, menge time.
- t) On the twentieth, both people have heads, but only the second person gets a fortune and is counted as mengkem time.
- u) The twenty-first day, both people have heads, but only the first person gets sustenance and is counted as ayu time.
- v) On the twenty-second, the first person has no head and the second person has a head; neither of them gets any sustenance because the day is timed ale.
- w) On the twenty-third, both people are headless, but the second person has good fortune and is counted as the time of menge.
- x) The twenty-fourth, the first person, has no head and the second person has a head, but there is no fortune because they are lazy, and it is counted as the time of mengkem.
- y) The twenty-fifth, the first person has no head and the second person has a head; there is no fortune, only smooth travel because the day is timed ayu.
- z) On the twenty-sixth, the first person has a head and the second person does not; only the first person gets a blessing because he has an auspicious sign, although the day is timed ale.



- aa) On the twenty-seventh, both have no head; they will have good fortune because the day is timed a menge.
- bb) On the twenty-eighth, both of them have no heads; only the second person will have good fortune because he has an auspicious sign, even though the day is timed to mengkem.
- cc) On the twenty-ninth, the first person has a head and the second person does not; only the second person will get a blessing because the 29th is a day of strangeness (ayu).
- dd) On the thirtieth, the first person has a head and the second person does not; only the first person gets good fortune because it is counted as ale time.

2) *Tike Lime*



The Tike Lime above is one of the fields of the Pandita Board which is often known as Kartike, more specifically referred to as warige tike lime, which is used to find a good time for traveling and doing an activity. Tike Lime is an artifact with a column shape (5x7) having 35 columns, starting from the top right corner and counting to the left, which amounts to 7 columns. The column represents the day of the week, the calculation starts from Friday.



Then, from top to bottom, look at the picture above, as many as 5 columns, which are time calculations. Each symbol or column is valid for two hours, starting from 7-8, 9-10, 11-12, 13-14, 15-16. The term in the calculation of time does not recognize 24 hours in a day, but the 24 hours are divided into two, namely, the same 12 hours more clearly, from morning to evening and from evening to morning. The following is an explanation of the tike lime symbols.

Table 1. Symbols, names and meanings of Tike Lime¹¹

No	Symbols	Name	Meanings
1	+	Rezeki	Rizki
2	X	Keselur	Unable to make friends
3	∨	Kale Luang	Affected by calamity

¹¹H. Taufik, Interview, Lengkok Mate Village Banyu Urip District Praya Barat Lombok Tengah, April 14 2021,”



4		Ribek	Crowded with people
5		Suwung	Deserted

2. Determination of Auspicious Days Using the Pandita Board (Wong-Wong and Tike Lime) from an Astronomical Perspective

a. Method for Determining Auspicious Days Using the Pandita Board (Wong-wong and Tike Lime)

In determining the calendar, the Sasak community uses three references: the Gregorian Calendar, the Hijri Calendar, and the Sasak Calendar. The Sasak Rowot Calendar is used by the Sasak community to determine the seasons (Mangse)¹² using the 5-15-25 pattern because the Rowot Star or Pleiades always appears on those dates. The Hijri¹³ calendar is used for determining dates and months, allowing the discovery of the 5-15-25 pattern of the Rowot Star's appearance. The Gregorian calendar is used to observe the Rowot Star, making it easier for everyone to understand the Sasak Rowot calendar and find the Gregorian year and month of the Rowot Star's appearance on the 5-15-25 dates.¹⁴

Next are the steps to finding a good day using the pandita board. There are two parts of the board used to calculate the day, namely Wong-wong and Tike Lime. These two parts of the board are used to determine good days starting from the month, day, and hour. Before looking for

¹²Mangse is a collection of information about the timing and characteristics of seasonal transitions. In a year, the mangse is divided into two seasons: kebalit, or the dry season, which starts at the beginning of the mangse calendar when the rowot star appears, marking the first mangse from May to November, totaling 7 months, and ketaun, or the rainy season, which starts from the 7th mangse from December to April, totaling 5 months, look at Muhammad Awaludin, *UIN Matram Press*, 2020, hlm: 28–29, can also be seen at Abdul Kohar and Arief Taufikurrahman, “Astronomical Review of the Determination of the Beginning of the Rowot Sasak Calendar Year Based on the Appearance of the Pleiades Star,” *AL - AFAQ: Journal of Islamic Astronomy and Astronomy*, 2021, 25.

¹³This calendar system utilizes the changes in the moon's phases as the basis for timekeeping. In its journey around the earth, the moon's phases will change from new moon to crescent moon, half moon, gibbous moon, full moon, half moon, and crescent moon. Look at Ruswa Darsono, “Islamic Calendar (Review of System, Fiqh, and Calculation of the Calendar),” *Yogyakarta: Labda Press*, 2010, 22–23. Meanwhile, the Islamic Lexicon states that the Hijri calendar or Tarikh Hijri is the Islamic calendar that begins with the event of the Prophet's Hijrah. See also in Susiknan Azhari, “Islamic Calendar (Towards the Integration of Muhammadiyah-Nu),” *Yogyakarta: Museum, Islamic Astronomy*, 2012, 27.

¹⁴The Gregorian calendar currently in use is rooted in the Julian calendar system, which was an improvement of the Roman calendar system. At that time, the astronomer named Sosigenes had used a year length of 365.25 days. Look at Ahmad Izzuddin, “Calendar System,” *Semarang Kerya Abadi Jaya*, 2015, 73. The calculation of the calendar year is based on the revolution and rotation of the Earth. Where the rotation of the Earth = 24 hours = one day and night, commonly referred to as one day, and the revolution of the Earth 365.25 x the rotation of the Earth = 365.25 days = 1 year. See in Tjokorda Rai Sudharta et Al, “301-Year Calendar (Year 1800 to 2100), in 301-Year Calendar (Year 1800 to 2100),” (*Jakarta: Balai Pustaka*), 2006, 16.



auspicious days, we need to know the kalen bulan (days that are considered unfavorable) of each month, if we want to do important things, such as building a house, sending children to school, or getting married. For example, if a child is sent to school on a kalen bulan day, it is believed that the child may be lazy and face many problems.

Table 2. Explanation of *Kalen bulan* (Days that are Considered Unfavorable)

No	Nama Bulan			<i>Kalen Bulan</i>
	Kalender Masehi	Kalender Hijriah	Kalender Sasak	
1	January	Muharram	<i>Bubur Puteq</i>	Saturday, Sunday
2	February	Shafar	<i>Bubur Beaq</i>	Saturday, Sunday
3	March	Rabi'ul Awal	<i>Maolut</i>	Saturday, Sunday
4	April	Rabi'ul Akhir	<i>Suwung Penembeq</i>	Monday, Tuesday
5	May	Jumadil Awal	<i>Suwung Penengaq</i>	Monday, Tuesday
6	June	Jumadil Akhir	<i>Suwung Penutuq</i>	Monday, Tuesday
7	July	Rajab	<i>Me'rat</i>	Wednesday, Thursday
8	August	Sya'ban	<i>Roah</i>	Wednesday, Thursday
9	September	Ramadhan	<i>Puase</i>	Wednesday, Thursday
10	October	Syawal	<i>Lebaran Nine</i>	Friday
11	November	Dzulqo'dah	<i>Lalang</i>	Friday
12	December	Dzulhijjah	<i>Lebaran Mame</i>	Friday

After finding out about the kalen bulan, we will then explain how to determine good days using the Pandita Board (Wong-wong and Take Lime), as follows: The following is an example of determining the day to find a date for marriage using the Pandita Wong-wong Board and Tike Lime: Amaq Suma from Banyu Urip village in West Praya sub-district asked Mr. Ranse, the Good Day Stakeholder, to determine the auspicious date for his son Kusumayadi, who would propose to a widow on Saturday, 3 Syawal 1442. Mr. Ranse then calculated the auspicious date using Wong-wong and Tike Lime.

The first step is to look at the Wong-wong picture above. It is written in the direction of UTSB and the dates 1 to 30. To start the calculation, first read Bismillah, then face it according to UTSB and count to the left, from north to south, starting from date 1. Since Amaq Suma wanted to find a good day in the middle of Syawal 1442 H, H. Taufik started calculating the date from Thursday, 1 Syawal, where in the calculation of a good day, it has 4 main concepts, namely ayu



time (good / good) ale (obstacles) menge (thinking / smart) mengkem (laziness).¹⁵ So, every 1st date is calculated as ayu time, the 2nd date is calculated as ale time, 3rd date is calculated as menge time and 4th date is calculated as mengkem time. After that, the 5th date is repeated by ayu time and so on.

The ayu time taken from the calculation is the ayu of 13 Shawwal on Tuesday for the proposal and the ayu of 17 Shawwal on Saturday for the marriage contract. Why not take a 9th date? Because the 9th is a Friday, which on Friday of the month of Shawwal is the kalen day of the month it cannot be taken.

After determining a good day, especially in making a proposal, namely on Tuesday the 13th of Shawwal. In Wong-wong, the 13th of Shawwal it is read that the 13th of the first person does not have a head while the second person has a head, meaning that if you make a visit to the second person, then the second person gets more fortune or luck than the first person. On that day it is called ayu time. So, the conclusion is that when making a proposal on that date, the first person will get it according to their purpose there, but in terms of conversation, the first person loses to the second person.

Then immediately calculate the right time to go propose using Tike Lime. The way to calculate is, count starting from the top right corner starting on Friday, count to the left until you find Tuesday. In the calculation, Tuesday falls in the 5th column, then counts down to find the best time to make a proposal.

Sasak people do not recognize the calculation of 24 hours in a day, but the 24 hours are divided by 2, from evening to morning and from morning to evening. In Tike Lime there are 5 columns counted down, each column lasts for 2 hours. Since the time of Amaq Suma's proposal was in the afternoon, this calculation is taken from morning to afternoon.

The 5th column in the Tike Lime above explains that the good time described in the 3rd column falls at 11-12 hours. So the group brought by Amaq Suma at that time left before the good time and Amaq Suma said that the prediction of the good day was in accordance with what H. Taufik said.

b. Analysis of Determining of Auspicious Days Using the Pandita Board (Wong-Wong and Tike Lime) from an Astronomical Perspective

The determination of auspicious days using the Papan Pandita is a tradition of the Sasak community that is still preserved to this day. One important aspect in determining auspicious days using the Papan Pandita is the observation of the moon. The Sasak community observes the changes in the moon's shape with the naked eye, which refers to the calculation of the Hijri lunar calendar or the upper moon. The phases of the moon, such as the new moon, full moon, and other phases, are used to determine when auspicious days will occur. This is closely related to the concept of astronomy,

¹⁵Amaq Suma, "Interview, Lengkok Mate Village Banyu Urip, Praya Barat District, Central Lombok," 2021.



where the position of the moon in the sky affects various aspects of life on Earth, including ocean tides, weather patterns, and agricultural activities.

In addition, Bintang Rowot (Pleiades) also plays an important role in this system of determining auspicious days. The Rowot Star is used as a seasonal indicator in the Sasak Rowot calendar with a 5-15-25 calculation pattern. This pattern is based on the movement of stars in the sky, which, astronomically, helps the Sasak community determine the right time to start their new year, which also marks the season. Each pattern formed by the movement of these stars is closely related to the weather and seasonal changes faced by the community, such as the rainy or dry season.

In the Papan Pandita, there is a more detailed calculation system using Kartike Lime, which combines 7 horizontal columns (for days) and 5 vertical columns (for hours). This pattern not only organizes the days of the week but also provides precise hour details for specific activities. In other words, the use of this calendar allows for very detailed calculations in determining the ideal time for an activity based on the astronomical conditions occurring at that moment.

As explained above, before starting the determination of auspicious days, it is necessary to pay attention to when the Kalen Bulan occurs (see table 2). After determining the lunar calendar, the author will analyze auspicious days from an astronomical perspective based on the 8 phases of the moon.

Table 3. Good Days of the Month

No	Day	Date		Time/Good Days
		Hijriyah/ Sasak	Masehi	
1	Thursday	1 Syawal/Lebaran 1442H	13 Mei 2021	21:00-22:00
2	Monday	5 Syawal/Lebaran 1442H	17 Mei 2021	01:00-02:00
3	Tuesday	13 Syawal/Lebaran 1442H	25 Mei 2021	23:00-24:00
4	Saturday	17 Syawal/Lebaran 1442H	29 Mei 2021	19:00-20:00
5	Wednesday	21 Syawal/Lebaran 1442H	2 Juni 2021	01:00-02:00
6	Sunday	25 Syawal/Lebaran 1442H	6 Juni 2021	23:00-24:00
7	Thursday	29 Syawal/Lebaran 1442H	10 Juni 2021	21:00-22:00

Based on the table above, it can be concluded that in one month, starting from the 1st of Shawwal 1442H- 29th of Shawwal 1442H, the number of good times is 7 days per month. That is on the 1st, 5th, 13th, 17th, 21st, 25th and 29th of Shawwal 1442H. The Moon phase changes its appearance every day as seen from Earth. The Moon evolves around the Earth, which causes the effect an shape of the Moon changes. This is actually due to a change in the angle from which we see the part of the Moon that is exposed to the Sun.¹⁶ This is called the Moon Phase, and it repeats

¹⁶Waliawat, "Determination of the Beginning of the Lunar Month with Rukyat in Three Phases of the Moon (A Study of Izzuddin Nawawi's Thoughts in the Book of Ilmu Al-Falak)," Hesis, Faculty of Sharia and Law, UIN Walisongo Semarang, 2019, 57.



every 29.5 days, which is the time it takes for the Moon to go around the Earth.¹⁷ Divided into 8 phases, including:

- 1) Phase Pertama : Date 1,2,3,4,5,6
- 2) Phase Kedua : Date 7,8,9,10
- 3) Phase Ketiga : Date 11,12,13,14
- 4) Phase Keempat : Date 15,16,17,18
- 5) Phase Kelima : Date 19,20,21,22
- 6) Phase Keenam : Date 23,24,25,26
- 7) Phase Ketujuh : Date 27,28
- 8) Phase Kedelapan : Date 29

Furthermore, researchers will analyze good days using the phases of the moon above. Here is the explanation:

Table 4. Good Day Analysis Using the Phases of the Moon.

Moon Phase	Syawal/Lebaran 1442H					
1	1 (Thursday)	2 (Friday)	3 (Saturday)	4 (Sunday)	5 (Monday)	6 (Tuesday)
2	7 (Wednesday)	8 (Thursday)	9 (Friday)	10 (Saturday)		
3	11 (Sunday)	12 (Sunday)	13 (Monday)	14 (Tuesday)		
4	15 (Thursday)	16 (Friday)	17 (Saturday)	18 (Sunday)		
5	19 (Monday)	20 (Tuesday)	21 (Wednesday)	22 (Thursday)		
6	23 (Friday)	23 (Friday)	24 (Saturday)	25 (Sunday)	26 (Monday)	
7	27 (Tuesday)	28 (Wednesday)				
8	29 (Thursday)	30 (Friday)				

So, based on the analysis above, the author can conclude that the auspicious days that take place in one month always occur on the same date. The difference is only a month. A good day always lasts 2 days, namely the first date of the Moon phase and the fifth date of the Moon phase, but if there is a kalen Bulan day every ayu calculation, it is not counted as a good day.

D. Conclusion

The method of determining auspicious days using the Pandita Board in Banyu Urip Village, Praya Barat District, is based on three concepts. First, using the Rowot Sasak calendar, which is similar to the hijri urfi calendar, where the number of days in a month is 29 or 30 days. Second, determining

¹⁷S Sadri Saputra and Nurul Wakia, "Discourse of Rukyat: A Method to Inspire the Truth of the Calculation of the Lunar Month," *ElFalaki: Journal of Islamic Astronomy* 4, no. 1 (2020): 24.



the day and date as well as a person's character through the calculation of wong-wong. Third, calculating the exact time or hour using tike lim. Additionally, the results of the good day determination analysis using the Papan Pandita (wongwong and tike lime) reflect a deep understanding of natural phenomena and astronomy. This system not only considers the movement of the moon but also other factors such as the position of stars that provide guidance in determining the most appropriate time to carry out various life activities. Thus, this tradition demonstrates a close relationship between the local knowledge of the Sasak people and natural phenomena that can be directly observed in the sky and are still quite relevant for use today.

Bibliography

- Al, Tjokorda Rai Sudharta et. "301-Year Calendar (Year 1800 to 2100), in 301-Year Calendar (Year 1800 to 2100)." (*Jakarta: Balai Pustaka*), 2006, 16.
- Amaq Not, 2021. "Interview at Pejanggik Village Central Praya District Central Lombok, 2 April," 2021.
- Awaludin, Muhammad. "Rowot Sasak Calendar." *AL - AFAQ: Journal of Astronomy and Astrophysics*, 2019, 90.
- Azhari, Susiknan. "Islamic Calendar (Towards the Integration of Muhammadiyah-Nu)." *Yogyakarta: Museum, Islamic Astronomy*, 2012, 27.
- Darsono, Ruswa. "Islamic Calendar (Review of System, Fiqh, and Calculation of the Calendar)." *Yogyakarta: Labda Press*, 2010, 22–23.
- Irawan, Lalu Ari. "Warige: The Intersection of Sasak and Nusantara," Presented at the Sarasehan on the Revitalization of Traditional Knowledge and Traditional Cultural Expressions of Wariga in Mataram," n.d., 1.
- _____. "Warige: The Intersection of Sasak and the Archipelago" Delivered at the Sarasehan on the Revitalization of Traditional Knowledge and Traditional Cultural Expressions of Wariga in Mataram," n.d., 3.
- Izzuddin, Ahmad. "Calendar System." *Semarang Kerya Abadi Jaya*, 2015, 73.
- Khusurur, Misbah. "The Combination of Hisab and Rukyat as a Method for Determining the Beginning of the Hijri Month." *Al-Wasith Journal: Journal of Islamic Law Studies*, 2020, 5.
- Lalu Agus Fathurrahman, Lalu Ari Irawan. "Warige: Traditional Calendar System of the Sasak Ethnic Group." *Presented at the Astronomy Seminar in the Archipelago Culture at Ahmad Dahlan University – Yogyakarta*, 2014, 1.
- Muhammad Awaludin. "Rowot Sasak Calendar". *UIN Matram Press*, 2020, 28–29.
- Musonnif, Ahmad. "Falak Science: Method of Calculating the Initial Time of Prayer, Direction of Qibla, Urfi Calculation and True Calculation of the Beginning of the Month." *Yogyakarta: Teras*, 2011, 5.
- Not, Amaq. "Interview at Pejanggik Village Central Praya District Central Lombok, 2 April," n.d., 2021.
- _____. "Interview at Pejanggik Village Central Praya District Central Lombok, 2 April," 2021.



- Sadri Saputra, S, and Nurul Wakia. "Discourse of Rukyat: A Method to Inspire the Truth of the Calculation of the Lunar Month." *ElFalaki: Journal of Islamic Astronomy* 4, no. 1 (2020): 24.
- Suma, Amaq. "Interview, Lengkok Mate Village Banyu Urip, Praya Barat District, Central Lombok," 2021.
- Taufik, H. "Interview, Lengkok Mate Village Banyu Urip District Praya Barat Lombok Tengah, April 14, 2021," n.d.
- _____. "Interview at Lengkok Mate Banyu Urip Village West Praya District Central Lombok, 27 Desember," 2020.
- Taufikurrahman, Abdul Kohar and Arief. "Astronomical Review of the Determination of the Beginning of the Rowot Sasak Calendar Year Based on the Appearance of the Pleiades Star." *AL - AFAQ: Journal of Islamic Astronomy and Astronomy*, 2021, 25.
- Waliawat. "Determination of the Beginning of the Lunar Month with Rukyat in Three Phases of the Moon (A Study of Izzuddin Nawawi's Thoughts in the Book of Ilmu Al-Falak)." *Hesis, Faculty of Sharia and Law, UIN Walisongo Semarang*, 2019, 57.
- Zulhadi, Heri. "The Bau Nyale Sasak Customary Calendar System in an Astronomical Perspective." *Thesis, UIN Walisongo Semarang*, 2019, hlm: 3.