

# THE USE OF THE ABOGE CALENDAR IN THE JAMBI MANUSCRIPTS

## Power and Cultural Relations between Sultanates

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**Abstract:** This article aims to describe the use of the Aboge calendar system in Jambi Sultanate manuscripts and analyze the historical context of the period. The research used the philological method to elaborate the manuscripts and then applied historical and astronomical approaches to study the texts. The study involved some 17th to 20th-century manuscripts of the Sultanate of Jambi that use colophons in the Aboge calendar style. Although some of the Aboge calendars in the manuscripts cannot be converted into the Hijri and Christian calendars, the analysis of the Aboge calendar in these manuscripts strengthens the argument related to the influence of Javanese Kingdom of Mataram on the Jambi Sultanate, as known in Jambi Sultanate history, both power and cultural relations. In contrast, the use of the Aboge calendar in Jambi also shows the relationship between the Jambi Sultanate with Aceh and West Sumatra, where some of the Aboge reflect Aceh and Tariqa Shattariya modifications.

**Keywords:** Jambi manuscripts, Aboge calendar, Astronomy, Colophons in Malay manuscripts.

### Introduction

The use of the Javanese Aboge calendar in Jambi is due to a relationship between the Jambi Sultanate and the Javanese Mataram kingdom. Several Jambi manuscripts confirm this relationship. This story is recorded at least in the manuscripts entitled “Hikajat Negeri Jambi (HNJ)” and Hikajjat Toean Telani (HTT) stored in the Leiden

University Library<sup>1</sup>, as well as manuscripts entitled “Undang-undang Piagam Pencacahan Jambi (UPPJ)” and “Inilah Sejarah Kerajaan Jambi Sejak Tahun 700 H - This is the History of the Jambi Kingdom Since 700 H (ISKJ)” which was kept by the descendants of Sultan Thaha in Jambi and has been widely circulated in Jambi society<sup>2</sup>.

The HNJ and HTT manuscripts narrate that when he was about to die, Datuk Paduka Berhala, founder of the Jambi Kingdom, ordered his son Datuk Paduka Ningsum to deliver an annual tribute to the Sultan of Mataram (Mataram). Datuk Paduka Ningsum carried out this order until he died. Orang Kayo Hitam, son of Datuk Paduka Ningsum, who inherited the throne, did not want to continue this tradition, which caused the Sultan of Mataram to send a warning letter in the third year. Orang Kayo Hitam then went to Mataram in disguise with his two brothers, Orang Kayo Pingai and Orang Kayo Pedataran<sup>3</sup>.

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<sup>1</sup> These two manuscripts are the oldest manuscripts about the history of the Jambi Sultanate. Both are collections of the Leiden University Library with the code Noname, “Hikajat Toean Telani (HTT)” (Leiden University Library collection code Or. 12.189, 1861). and, Noname, “Hikayat Negeri Jambi (HNJ)” (Leiden University Library collection code Or. 2013, 1837). The two manuscripts were dated on the same date, 28 Rabi' al-Awwal 1253 H / 2 July 1837 AD, but HTT seems to be a rewritten version of HNJ where at the end of the text, it is mentioned that it was copied on 20 Jumad al-Akhir 1278 H / 25 October 1861 AD. The Dutch version of this text, with an additional explanation at the beginning of the text, was published under the article: Noname, “Legenden van Djambi” (Batavia: Bataviaasch Genootschap voor Kunsten en Wetenschappen, 1846). Another manuscript that discusses the history of the Jambi Sultanate is Noname, “Stukken Betreffende Djambi” (archives of the Palembang Residency at ANRI with code K. 34 No. 5.2, n.d.). and Noname, “Geslachtsboom Der Voorsten van Djambi” (archives of the Residency at ANRI with code K. 34 No. 5.4, n.d.). The text in manuscript No. 5.2 is written in Malay with Latin script, while the text in manuscript No. 5.4 uses Dutch with Latin characters. The story in these two manuscripts looks like the copy and translation refer to the HNJ manuscript.

<sup>2</sup> The text “Undang-undang Piagam Pencacahan Jambi (UPPJ)” was written by Ngabehi Sutho Dilogo Priayi Raja Sari (NSD) on 1 Rabi' al-Akhir 1317 H / 8 August 1899 M. The writing of this manuscript seemed to have stopped before it was finished, so it was rewritten by NSD, look at Ngabehi Sutho Dilogo Priayi Raja Sari (NSD), “Undang-Undang Piagam Pencacahan Jambi (UUPJ),” 1899. with several changes and the addition of several texts, with the title “Inilah Sejarah Kerajaan Jambi Sejak Tahun 700 H (ISKJ)”, Ngabehi Sutho Dilogo Priayi Raja Sari (NSD), “Inilah Sejarah Kerajaan Jambi Sejak Tahun 700 H (ISKJ),” n.d.

<sup>3</sup> Noname, “Hikayat Negeri Jambi (HNJ)”; Sergei Kukushkin, “Hikayat Negeri Jambi: The Structure and Sources of a Nineteenth-century Malay Historical Work,” *Indonesia and the Malay World* 32, 92 (2004): 53–61, <https://doi.org/10.1080/1363981042000-263453>.

In Mataram, they find a blacksmith commissioned by the Sultan to create a *keris* to kill Orang Kayo Hitam. Upon learning the *keris*' purpose, Orang Kayo Hitam took it, murdered the craftsman, and caused havoc in the market. After hearing about the incident, the Sultan came to the market to investigate the case. Afterward, he invited Orang Kayo Hitam and his siblings to the palace once the problem was explained. After the negotiation process at the court, the Sultan then allowed Orang Kayo Hitam and his brothers to return to Jambi, bringing a *keris*, two spears, and a sword as a gift from the Sultan of Mataram, who also guaranteed the elimination of the annual tribute.<sup>4</sup>

A similar story is also told in the ISKJ script. Orang Kayo Hitam, who is referred to in the ISKJ text as the son of Datuk Paduka Berhala, stopped delivering the annual tribute to Mataram. Ratu Mataram, not the Sultan as in the previous text, ordered the making of a *keris* and a powerful spear after learning about Orang Kayo Hitam's disobedience. When Orang Kayo Hitam came to Mataram, he learned the story of making *keris* from craftsmen. Then Orang Kayo Hitam later went on a rampage and conquered Mataram, and then took the *keris* and spear to Jambi.<sup>5</sup>

Despite XIX and XX-century manuscripts indicating Jambi's subordination and conflict with Mataram, little historical study has been conducted on their relationship from the kingdom's inception to the end of the Sultanate. Although the story in the manuscripts seems like folklore, Dutch documents record that Jambi once had close relations with Mataram in the 17th century, more than a century after the era of the Orang Kayo Hitam told in the manuscripts.<sup>6</sup> However, apart from these Dutch records, there is little supporting evidence for this relationship. In this context, it is interesting to analyze the existence of the Aboge calendar system in Jambi manuscripts. Does the use of the Aboge calendar have relevance to the history of the relationship between the Jambi Sultanate and Mataram as narrated in

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<sup>4</sup> See also Kukushkin, "Hikayat Negeri Jambi: The Structure and Sources.

<sup>5</sup> See the text "Inilah Sejarah Kerajaan Jambi Sejak Tahun 700 H" and its transliteration published by the Jambi Province Culture and Tourism Office in 2005, see (NSD), "Inilah Sejarah Kerajaan Jambi Sejak Tahun 700 H (ISKJ)."

<sup>6</sup> Barbara Watson Andaya, *Hidup Bersauara: Sumatra Tenggara pada Abad XVII dan XVIII*, trans. Septian Dhaniar Rahman and Aditya Patama (Yogyakarta: Ombak, 2016, p. 116-128.



analyze the Aboge system calendar, for example Susiknan Azhari,<sup>9</sup> Wali Cosara, et al.<sup>10</sup>, and Sakirman.<sup>11</sup> Other research related to calendars can be seen in several studies such as Qadim,<sup>12</sup> Darmawan,<sup>13</sup> Hidayatullah,<sup>14</sup> Ozkan,<sup>15</sup> Maskufa,<sup>16</sup> Raharto,<sup>17</sup> Rofiuiddin,<sup>18</sup> Rodzali,<sup>19</sup> Purwanto,<sup>20</sup> Nurkhanif,<sup>21</sup> Mufid,<sup>22</sup> Fuscha,<sup>23</sup> and Wahidin.<sup>24</sup> However,

<sup>9</sup> Susiknan Azhari, Ignor Azli Ibrahim, "Kalender Jawa Islam: Memadukan tradisi dan tuntutan syar'i", *Asy-Syar'ab: Jurnal Ilmu Syari'ah dan Hukum*, Vol. 42, No. 1, 2008

<sup>10</sup> Wali Cosara, "Hisab Awal Bulan Syiah Kuala (Menyunting Dari Naskah Risalah Asy-Syaikh 'Abd ArRauf Fi At-Taqwim)," *Al - Afaq: Jurnal Ilmu Falak Dan Astronomi* 4, 1 (2022): 110–28, <https://doi.org/10.20414/afaq.v4i1.5137>.

<sup>11</sup> Sakirman, Islam Aboge dalam Tradisi Alastua, *Jurnal Kebudayaan Islam* 14, 2 (2016).

<sup>12</sup> Husnul Qodim and Robbi Rahim, "Islamic Calendar: Prototype of Hijri Calendar Application Using Rapid Application Development Method," in 2019 7th International Conference on Cyber and IT Service Management (CITSM), vol. 7 (2019), pp. 1–4.

<sup>13</sup> G Darmawan, D Rosadi, and B N Ruchjana, "Autocorrelation Analysis of Covid-19 Based on Hijri Calendar," *Journal of Physics: Conference Series* 1918 (2021).

<sup>14</sup> Syarif Hidayatullah, "Global Hijriyah Calendar as Challenges Fikih Astronomy.

<sup>15</sup> Nasif Ozkan, "Hijri Calendar Effect in Borsa Istanbul Gold Market and Turkey's Foreign Exchange Market," *Journal of Islamic Accounting and Business Research* 10, no. 4 (2019): 580–90.

<sup>16</sup> Sopa Maskufa, Sri Hidayati, and Adi Damanhuri, "Implementation of the New MABIMS Crescent Visibility Criteria: The Hijriyah Calendar in the Southeast Asian Region," (2022).

<sup>17</sup> M Raharto et al., "New Approach on Study of New Young Crescent (Hilal) Visibility and New Month of Hijri Calendar," *Journal of Physics: Conference Series* 1170 (2019).

<sup>18</sup> Ahmad Adib Rofiuiddin and Ahmad Luqman Hakim, "NGOs Contestation on Islamic Hijri Calendar in Urban Muslim Society in Indonesia: From Authority To Identity," *Akademika: Jurnal Pemikiran Islam* 27, 2 (2022): pp. 171–82.

<sup>19</sup> Muhammad Zakuwa Rodzali, "Relevansi Takwim Uhadi Dengan Syarat-Syarat Ditetapkan Kongres Istanbul 2016 Bagi Takwim Hijri Global: Relevance of Uhadi Calendar with Conditions Determined by Istanbul Congress 2016 For Global Hijri Calendar," *Online Journal of Research in Islamic Studies* 8, 1 (2021): pp. 1–37.

<sup>20</sup> Muhammad Roy Purwanto, Chusnul Chotimah, and Imam Mustofa, "Sultan Agung's Thought of Javanis Islamic Calendar and Its Implementation for Javanis Moslem," *International Journal of Emerging Trends in Social Sciences* 4, 1 (2018): pp. 9–14.

<sup>21</sup> Muhammad Nurkhanif et al., "Syar'i and Astronomy Integration To Determine The Beginning Of Hijri Calendar: A Study of Elongation to Prove the Hilal Testimony," *Ulul Albab* 23, 2 (2022), p. 183.

<sup>22</sup> Abdul Mufid and Thomas Djamaluddin, "The Implementation of New Minister of Religion of Brunei, Indonesia, Malaysia, and Singapore Criteria towards the Hijri Calendar Unification," *HTS Teologiese Studies/Theological Studies* 79, 1 (2023).

no related writings are conducted exclusively on the Aboge calendar system in society, covering the issues of the calendar method, including a description regarding how to determine the beginning of the month of the Aboge system.<sup>25</sup> Likewise, studies related to the use of the Aboge calendar in manuscripts, especially those in Jambi, concerning power and cultural relations, have yet to be found in a review of previous studies.

This article discusses the use of the Aboge calendar system in Jambi manuscripts in the socio-historical context of the Jambi Sultanate. The analysis includes the conversion and astronomical study of the calendar and the meaning of using the Aboge calendar system in Jambi historiography. This article was written based on literature research using philological and astronomical techniques. The primary data sources are Jambi manuscripts that record the history of Jambi-Mataram relations and manuscripts that use the Aboge dating model from the 17<sup>th</sup> to 20<sup>th</sup> centuries. Data sources in this research are generally taken from primary data, namely ancient manuscripts and secondary data, which are writings from previous researchers.<sup>26</sup> The stages in this research are, first, collecting historical data related to the theme. Second, this data is then separated and mapped according to type and discussion. This data mapping is performed according to time and then grouped into their respective periods. Third, sorting data that meets standards for use by viewing and validating data with history and sources that can be accounted for. Fourth, after grouping this data, it is then assembled into a series of organized events, thus producing a mapping of the study of the Aboge calendar.<sup>27</sup> Writing related to power relations and culture in the Aboge Jambi calendar manuscript is,

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<sup>23</sup> Fika Afhamul Fuscha, "Verification of The Hisab Ephemeris System Against the Hijri Calendar Leap Year Pattern with Criteria Imkan Al-Rukyah Mabims (Case Study in Kudus District)," *Al-Hilal: Journal of Islamic Astronomy* 3, 1 (2021): pp. 107–28.

<sup>24</sup> Nurul Wasilah Wahidin, "Problem of Unification Hijri Calendar," *Al - Afaq: Jurnal Ilmu Falak Dan Astronomi* 4, 2 (2022): pp. 275–83, <https://doi.org/10.20414/afaq.v4i-2.5761>.

<sup>25</sup> Tasnim Rahman Fitra, "Fikih Kalender Hijriah Unifikatif," *Istinbath* 17 (2018): pp. 1–26, <https://doi.org/https://doi.org/10.20414/ijhi.v17i2.96>.

<sup>26</sup> Tasnim Rahman Fitra, "Historiografi Hisab Rukyah," *Jurnal Pendidikan Sejarah* 12, 1 (2023): pp. 21–47.

<sup>27</sup> Wulan Juliani Sukmana, "Metode Penelitian Sejarah," *Seri Publikasi Pembelajaran* 1 (2021).

of course, attempted to fulfill the chronological aspect of each series of events that occurred.

### **The Aboge Calendar and the Jambi Manuscripts**

The Aboge calendar system has a long history attached to Javanese society. The Aboge calendar system was born as the forerunner to the refinement of the Saka calendar.<sup>28</sup> The Saka calendar is a calendar with the *Shamsiah-Qamariyah* system (solar-moon), a combination of the lunar and solar systems. This calendar originates from India and is still used by the Hindu community. The Balinese still use the Saka Calendar in Indonesia, especially in determining Hindu religious holidays.

The Saka calendar started in 78 AD and has various stories about the origin of its name. One version tells that this naming comes from the story where the Saka managed to seize the city of Ujjayini (Malwa in present-day India) from the hands of the Satavaha. The Saka calendar system is also often called the Saliwahana calendar, referring to the name of a person who is considered successful in defeating the Saka people in 78 AD. These stories differ from the belief of many Javanese people who believe Raja Ali Saka created the Saka Calendar<sup>29</sup>.

The Javanese used the Saka calendar until the 17th century. During the early development of Islam, the Saka calendar was used together with the Hijri calendar, as was the case in the Sultanates of Demak, Banten, and Mataram. In 1633 AD, Sultan Agung of Mataram abolished the Saka calendar and introduced the Islamic-Javanese calendar system, which was identical to the Hijri system. This revolutionary move was supported by the courtiers and the clergy, especially those who had mastered the science of astrology or astronomy. This calendar contains a mix of Javanese, Hindu-Javanese, and Islamic, where the calendar starts on the 1st Sura of the year Alip, with the year 1555, which means it falls together with 1 Muharram 1043 H or 8 July 1633 AD. Thus, this calculation was different from the Saka year, which the Javanese used at that time because the Saka

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<sup>28</sup> Some people say the term Saka comes from the name of a tribe (people) originating from Turkey or Tartar, some say that it comes from the Aryans of the Scythian tribe, while other sources say they come from the Greeks who ruled in Bactria (now Afghanistan). See also Joshua Ehrlich, "Plunder and Prestige: Tipu Sultan's Library and the Making of British India," *South Asia: Journal of South Asia Studies* 43, 3 (2020): pp. 478–92, <https://doi.org/10.1080/00856401.2020.1739863>.

<sup>29</sup> Sakirman, "Islam Aboge Dalam Tradisi Jawa Alastua.

calendar followed the solar system (*shamsiyah*), the journey of the earth around the sun, while Sultan Agung's calendar followed the lunar system (*qamariyah*), the moon's rotation around the planet like the Hijri calendar.<sup>30</sup>

the Javanese-Islamic calendar is then known as the Aboge calendar. The word Aboge itself is an abbreviation of "*Alif Rebo Wage*" which means the 1st of Muharram in the year *Alif* falls on the *Rebo* day (Wednesday) of the *Pasaran Wage*. Aboge uses the basic calendar calculation in one Windu or eight years, so the Aboge system is a cyclical calculation of periods. Years in the Aboge system are named in Arabic letters ا هـ ز ح هـ ا (Alif, Ha'/He, Jim, Za/Je, Dal, Ba'/Be, Waw, and Dal Akhir)<sup>31</sup>. One Aboge year has 12 months, with odd months having 30 days, while even months have 29 days, except for the 12th month having 30 in long (leap) years. The Aboge year contains 354.375 days, so this calendar cycle is eight years (1 Windu). The 2nd, 5th, and 8th years are long (Leap), while the others are short (Basithah).<sup>32</sup>

The order of the year starts with the letter waw (first year). So that the remainder of the division of the Hijri year will form the letters of the year, which are sorted into:

**Table 1.** Letter of the Year on the Aboge Calendar <sup>33</sup>

Remaining Division	Letter of the Year	Jumali Number
0	Ba	2
1	Waw	6
2	Dal (Awal)	4
3	Alif	1
4	Ha	5
5	Jim	3
6	Zai	7
7	Dal (Akhir)	4

<sup>30</sup> Dimiyati Huda, *Varian Masyarakat Islam Jawa Dalam Perdukunan; Mitos Sosial Budaya Dan Pandangan Masyarakat Islam Jawa Terhadap Praktek Paranormal Dalam Perubahan Dan Perkembangan* (Kediri: STAIN Kediri Press, 2011), pp. 57-8.

<sup>31</sup> Skirman, "Islam Aboge dalam Tradisi Jawa Alastua," *Jurnal Kependidikan Islam* 14, 2 (2016), p. 177.

<sup>32</sup> Muhyiddin Khazin, *Ilmu Falak Dalam Teori Dan Praktek* (Yogyakarta: Buana Pustaka, 2004), p. 119.

<sup>33</sup> Cosara, "Hisab Awal Bulan Syiah Kuala, Menyunting Dari Naskah Risalah Asy-Syaikh 'Abd ArRauf Fi At-Taqwim, p.126.

The sequence of month letters, from the letters zai to the letters jim, is the letters arranged sequentially from the month of Muharram to the month of Dzulhijjah. The following are the letters of the Hijri months using the Jumali reckoning method.

**Table 2.** Letters of the Hijri Months in the Aboge Calendar <sup>34</sup>

Month Name	Letter	Jumali Number
Muharram	Zai	7/0
Safar	Ba	2
Rabiul Awal	Jim	3
Rabiul Akhir	Ha	5
Jumadil Awal	Waw	6
Jumadil Akhir	Alif	1
Rajab	Ba	2
Sya`ban	Dal	4
Ramadhan	Ha	5
Syawal	Zai	7/0
Dzulqa`dah	Alif	1
Dzulhijjah	Jim	3

Furthermore, to find out the cycle of the Hijri year and what day the calculation starts, the Hijri year is divided by 120. The result of this division is the number of cycles that have passed. To find the starting day of the month, the results of the year calculation above are divided again by seven. The rest of the distribution will be sorted backward starting on Saturday.<sup>35</sup> This Aboge calendar system certainly needs to consider the astronomical conditions of the moon relative to the Earth in its calculations. Therefore, it is possible that the beginning of the month, according to the Aboge calendar, will differ from the contemporary calendar system because the Aboge calendar only considers the average moon cycle around the Earth.

The Aboge calendar model later spread throughout Mataram's territory, including several areas on the island of Sumatra, which, historically, also experienced cultural acculturation from the Mataram kingdom.<sup>36</sup> Several modifications also occurred in this deployment, as carried out by Syiah Kuala (Aceh) and Tariqa (Sufi order) Shattariya (West Sumatra).

<sup>34</sup> Purwadi and Siti Maziyah, *Horoskop Jawa* (Yogyakarta: Media Abadi, 2006).

<sup>35</sup> Khazin, *Ilmu Falak*, p. 119

<sup>36</sup> Purwadi, *Sejarah Sultan Agung: Harmoni Antara Agama Dengan Negara* (Yogyakarta: Media Abadi, 2004), p. 5; Sakirman, "Islam Aboge Dalam Tradisi Jawa Alastua.

**Table 3.** Name of the Year in the Aboge Calendar of Mataram and Syiah Kuala Style

No	Mataram Style	Aceh (Syiah Kuala) Style
1.	Alif	Ba
2.	Ha	Waw
3.	Jim	Dal (Akhir)
4.	Zai	Alif
5.	Dal	Ha
6.	Ba	Jim
7.	Waw	Zai
8.	Jim (Akhir)	Dal (Awal)

Annabel Teh Gallop, in her research on the Jambi seals manuscripts, noted that since the arrival of Islam in the 16th century AD, the cultural trend of using stamps has begun to show Islamic identity, which can be seen from the Hijri calendar used on the stamp.<sup>37</sup> This Hijri calendar is also commonly found in the colophons of Malay manuscripts, including in the Jambi manuscripts. The four manuscripts that tell the early history of the Jambi Kingdom mentioned in the introduction all use colophons for the Hijri year. Several law books and letters of the sultan or other imperial officials also use similar colophons.<sup>38</sup>

Although this is rare, several Jambi manuscripts also use the Aboge calendar singly or with the Hijri calendar. The colophons using the Hijri calendar accompanied by the year letter indicate that the Aboge calendar is part of the development of Islam in Jambi. These manuscripts that use the Aboge calendar are listed in the table below:

<sup>37</sup> Annabel Teh Gallop, *The Medieval Globe* (Leeds: Arc Humanities Press, 2018), p. 75. See also Gallop, "Dates on Malay Seals: A Study of Arabic Numerals from Southeast Asia," pp. 89-114.

<sup>38</sup> See Annabel Teh Gallop, "Sovereign Signs: Titles of Kingship on Malay Seals," *Journal of the Malaysian Branch of the Royal Asiatic Society* 93 (2020): pp. 1–21, <https://doi.org/10.1353/ras.2020.0012>; Annabel Teh Gallop. "Piagam Serampas: Malay Documents from Highland Jambi," Dominik Bonatz, John Miksic, J. David Neidel, Mai Lin Tjoa-Bonatz (eds), *From Distant Tales: Archaeology and Ethnohistory in the Highlands of Sumatra* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2009). Annabel Teh Gallop. Annabel Teh Gallop, "The Early Use of Seals in the Malay World," *Bulletin de l'École Française d'Extrême-Orient* 102, 1 (2016), pp. 125–163; Irmawati Sagala, *Islam Dan Adat Dalam Sistem Pemerintahan Jambi Masa Kesultanan Dan Kolonial Pada Tahun 1855 – 1942* (Jakarta: UIN Syarif Hidayatullah, 2020).

**Table 4.** List of the Manuscripts Using Aboge Calendar

No	Title of The Text	Stored at
1.	Contract met Sultan Jambi, Anom, 21 Agustus 1681	National Archives of Indonesia
2.	Piagam Serampas	Merangin, Jambi
3.	Sumpah persahabatan Kiai Gede dan Pringgabaya	National Archives of Netherlands
4.	Kitab oendang oendang adat Djambi	Leiden University Library
5.	Piagam Batu Penyambung	Sarolangun, Jambi
6.	Twec piagoms uit Djambi	Leiden University Library
7.	Hikaijat Toean Telani	Leiden University Library
8.	Inilah Sejarah Kerajaan Jambi Sejak Tahun 700 H	Spreading out in the Jambi scholar

These eight manuscripts can be categorized into two types of texts: official sultanate texts and non-sultanate texts. The naming of days and years in these manuscripts shows that the Aboge calendar in Jambi generally used Mataram calendar without modification. However, a few also indicate the influence of modifications of the Aceh (Syiah Kuala) style and the Tariqa Shattariya in West Sumatra. These manuscripts, dating from the 17th century, indicate that the use of the Aboge calendar began in the early period of the modern Jambi sultanate in the 17th century.

### Aboge Calendar Conversion Analysis

The study of 17th to 20th centuries Jambi manuscripts, which had indications of using the Aboge calendar, found that there were several incomplete dates written in the manuscripts, such as only including the year, only mentioning the year and the Arabic name of the year, or only mentioning the Arabic name of the year without clearly stating the year. This unclear writing includes the manuscript "Kitab oendang oendang adat Djambi" and the manuscript collection of Batu Penyambung Village, Bathin VIII District, Sarolangun Regency. An incomplete dating process makes converting historical contexts and assessing their suitability impossible.

The oldest manuscript that uses the Aboge calendar is "Contract met Sultan Jambi, Anom, 21 Agustus, 1681".<sup>39</sup> At the end of the text, it is written: "Written and decided in Jambi on 1681 of the hijri of

<sup>39</sup> "Contract met Sultan Jambi, Anom, 21 Agustus, 1861" (Archives of the Riau Residency at ANRI with code K. 34 No. 68.2, 1861)

Prophet Isa AS (AD) in August on the 20th day of the month at the day Arba' (Wednesday) at the time of Ashar and on the Hijri of Prophet Muhammad SAW 1092 years in the year H on the sixth day of the month of Sya'ban at the time and day mentioned". The Aboge calendar used in this manuscript contains complete data, starting from the Gregorian date and its conversion to the Hijri calendar and the year letter of Aboge (year H). The astronomical calculation for the beginning of Sha'ban 1092 H shows that the start of the month occurred on Wednesday, August 13, 1681 AD, coinciding with 23:42:50 WIB (western Indonesian time). When the sun sets on that date, the crescent moon has a height of  $-5^{\circ}23'$  with an elongation of  $3^{\circ}45'$ , which means that the crescent conditions are not sufficient to enter the beginning of the month, so that the start of the month of Sha'ban will fall on Friday, August 15, 1681 AD. Confirming with the Aboge calendar written in the manuscript, the calendar and the conversion contained are correct: videlicet Wednesday, August 20, 1681, coincides with 6 Sha'ban 1092 H. An analysis through the 8-year cycle of the Mataram Aboge system shows that the year 1092 was the year H, which is identical to the typical Mataram Aboge system.

The Aboge calendar is also found in a collection of sultanate letters-charters in Serampas, Merangin Regency, Jambi Province.<sup>40</sup> There are at least two letters from the whole that use the Aboge calendar and are still clearly legible, in addition to one text that indicates the Aboge calendar but is no longer legible because the paper is damaged. The first letter begins with the sentence: "The Hijrah of Prophet SAW in 1120 years to the year Ba to three *likur* days of the month of Shawwal to Friday to the time of Zuhur to that time Duli Pangiran [Suta] Wijaya...". The *ijtima`* determining the beginning of the month of Shawwal 1120 H fell on Wednesday, December 12, 1708 AD, at 10:42 WIB. The height of the *bilal* at sunset was  $2^{\circ} 03' 53''$  with an Elongation of  $5^{\circ} 37' 39''$ ; this astronomical data shows that the position of the *bilal* was above the horizon, but modern science explains that the position of the *bilal* like this is not yet possible to be seen. Therefore, it can be concluded that the beginning of the month of Shawwal 1120 H will coincide with Friday, December 14, 1708 AD, so that the 23rd of Shawwal 1120 H will fall on Saturday, January 5,

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<sup>40</sup> This collection was published in Annabel Teh Gallop, "Piagam Serampas: Malay Documents from Highland Jambi" in *From Distant Tales: Archeology and Ethnohistory in The Highland Sumatra* (Newcastle: Cambridge Scholars Publishing: 2009), p. 272-322.

1708 AD, one day different from the calendar written in this manuscript. Next, the naming of the year in this manuscript with the letter Ba shows that the calendar system, primarily related to the order of naming the year based on the 8-year cycle, refers to the Aboge Mataram system.

The second letter of Piagam Serampas starts with the sentence: "The Hijrah of the Prophet SAW 1173 years to the year Jim to the fifteenth day of the month of Shafar on Monday, that this is a charter and stamp from Duli Sultan Anum Seri Ingalaga ...". The initial *ijtima`* of the month of Shafr 1173 H fell on Friday, September 21, 1759 AD, at 14:32:15.45. The height of the *hilal* at sunset was  $1^{\circ} 54' 16''$  with an Elongation of  $4^{\circ} 42' 44''$ . This astronomical data shows that the *hilal* had a positive value above the horizon, but scientifically, it was still difficult to see. Therefore, based on the calculation with visibility requirements (the possibility that the crescent moon can be seen), the beginning of the month of Shafar will fall on Sunday, September 23, 1759 AD. However, the Aboge calendar in this manuscript determines Monday as the 15th of Shafar 1173, which is different from the results of contemporary calculations, which show that the 15th of Shafar 1173 H falls on Sunday, October 7, 1759 AD. Regarding the naming of the year 1173 H with the letter Jim, this is similar to the Aceh version of the Aboge calendar because, in the Mataram version of the Aboge calendar, this name of the year is mentioned with the name Jim Awal. However, it is also possible that it is the Mataram version because in some texts, the words "*awal*" or "*akbir*" are not mentioned in the writing of the year name. The limitations of the calendar information contained mean that further analysis cannot be carried out.

In 1709, Kiai Gede made a written oath with Pringgabaya, signed in 1121, the year of Waw, 30 Sya'ban, at 8 am.<sup>41</sup> The *ijtima`* at the beginning of the month of Sya'ban 1121 H took place on October 3, 1709 AD, at 16.21 WIB. The height of the crescent moon at that time was  $-1^{\circ} 3' 36''$  with an elongation of  $2^{\circ} 47' 22''$ ; the crescent moon was still below the horizon, and the beginning of the month of Sha'ban 1121 H would fall on Sunday, October 5, 1709 AD, so that the 30th of Sha'ban 1121 H would coincide with November 3, 1709. Naming the

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<sup>41</sup> This text stored at the National Archive of Netherlands, the report of VOC Jambi to Batavia, February 21, 1710, fol. 48-52. See Barbara Watson Andaya, *Hidup Bersaudara: Sumatra Tenggara pada Abad XVII dan XVIII*, trans. Septian Dhaniar Rahman and Aditya Patama (Yogyakarta: Ombak, 2016), p. 251-252.

year with the letter waw indicates that the Aboge system used is the Mataram style without any modification; it is known that in the 8-year cycle of the Aboge calendar, the Waw year is the 7th year sequence known through the remainder of the Distribution which produces the number one which refers to the Waw year or the 7th year of the typical Mataram Aboge calendar system.

In the manuscript "Kitab oendang oendang adat Djambi,"<sup>42</sup> at the end of page 57 to the beginning of page 58, it is written: "This chapter of the law written on the year 1210 which is the year Dal, the end of the era of Sri Paduka Sultan Ratu Sri Ingalaga until the era of Sri Sultan Ratu Muhammad Fakhruddin ....". Although incomplete, the date of Dal indicates the use of the Aboge system in this text. The Dal year is the third year of the 8-year cycle of the Aboge calendar system used in Jambi. The Dal year itself is identified based on the year's division with the 8-year cycle of Aboge. Here, where the manuscript says: "the year 1210 to year Dal", 1210 divided by eight will result in a remainder of 2, which refers to the year Dal Akhir. This manuscript does not mention a more precise date, so conversion and in-depth analysis cannot be conducted. However, the available information shows the use of the Mataram style Aboge calendar, which has been influenced by the Syiah Kuala style in the order of year names.

Incomplete writing of an Aboge calendar was also found in the text of Batu Penyambung<sup>43</sup> Village (Bathin VIII District, Sarolangun Regency). The village head keeps this manuscript, and every year is handed down and opened in the *pseko* ceremony. At the end of the manuscript, the identity of the scriptwriter is written with the Aboge calendar with the transliteration below: "In the year Zai, on the 17th day of Tuesday, I write this as it is." In this manuscript, the colophon information is even less, so that it is difficult to predict the date and historical context. Information on Tuesday the 17th of Zai's year without other supporting information prevents this calendar from being further converted into the Hijri and Christian calendars. The information we can find is that in the manuscript, we see a date with

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<sup>42</sup> "Kitab oendang oendang adat Jambi" (Leiden University Library collection code Or.12.176, 1795).

<sup>43</sup> "Piagam Desa Batu Penyambung" (Batu Penyambung Village, Sarolangun Regency, Jambi Province, n.d.).

the year *Zai*, which is the name of the year that has the seventh order in the Aboge calendar system.

In general, the date without mentioning the month's name means the date of the first month in a Hijri year, Muharram. The day information listed can also provide additional clues that 1 Muharram in that year starts on Sunday. If it matches the Aboge calendar system, it is known that the beginning of the year *Zai*, which falls on Sunday, is in the year 601-720 H (1204-1320 H). This was felt to be inappropriate because the trend of using the Aboge calendar began to emerge several centuries later. Sunday at the beginning of Muharram also occurs in years above 1441 H. But this calculation is also impossible because the charter existed long before 1441 H.

However, if the calendar in this charter is seen through the Javanese-Islamic system (Aboge) typical of the Mataram kingdom, the *Zai* year referred to is the 4th year in the calendar cycle. An in-depth analysis was then performed to see the possibility of the beginning of the year starting from Sunday in the year *Zai* ala Mataram. The study shows that Sunday (*Zai* year) became the first day in 996 H and the year *Zai* in the range 1244 H to 1300 H. or around 1828 to 1882 AD and above. This data is more logical than the previous analysis because historical information related to Islamic trends has begun to develop in those years.

Turning to other manuscripts, the three dates written in the manuscript entitled "Twee piagem uit Djambi"<sup>44</sup> have complete dating records, so it is possible to perform a more in-depth astronomical analysis. Unfortunately, although this collection of letter manuscripts is kept in the Jambi collection by the Leiden University Library, the letter's contents are not related to the Jambi Sultanate but to the Kingdoms of Bima and Aceh. Perhaps this manuscript is categorized as the Jambi archive because on the page after the letter, it says, "Piagam van Djambi, door of Sultan Anom Sri Ingalaga....". The analysis of the calendar is as follows:

The letter year 1182 H, the opening part says, "The Hijrah of the Prophet SAW 1182 years of *Zai* on Friday the seven days of the month of *Dzul Hajj* when it was Our Lord Sri Sultan Abd al-Qadim Muhammad Sah Zhill Allah fi al-'Alam who has the throne of the Kingdom of Bima....". The date written on this manuscript is Friday, 7

<sup>44</sup> "Twee piagem uit Djambi" (Leiden University Library collection code D.Or.342, n.d.).

Zulhijjah 1182 H (the year of *Zai*). *Zai* year on this calendar shows the year cycle is in the order of the 6th year (out of 8 years). If traced back, 1 Zulhijjah 1182 will be determined through *ijtima`*,<sup>45</sup> which occurred on Thursday, April 6, 1769, at 23:46 WIB. When the sun sets on that date, the *hilal*'s position is still below the horizon with an elongation value (Moon-Sun angle) of 6 degrees 40 minutes, meaning that the *hilal* has not yet appeared. So, 1 Zulhijjah 1182 H fell on Saturday, April 8, 1769. This astronomical data shows that 7 Zulhijjah falls on Friday, April 14, 1769AD, according to the date written in the text.

The letter year 1198 H, in the opening part, says, "The Hijrah of the Prophet SAW 1198 years in the year *Zai* on Friday of the five *likur* of the month of Jumadil Awwal when it was our Lord Sri Sultan Abd Hamid Muhammad Sah Zhill Allah fi al-'Alam...". The date written on this manuscript is Friday, 25 Jumadil Awwal 1198 H (*Zai* year). The year is named the *Zai* year because it is the 6th year of the eight-year cycle adopted by the Aboge calendar. The suitability of the calendar will first be seen through the 1st of Jumadil Awwal 1198. *Ijtima`* determines the beginning of the month of Jumadil Awwal on Sunday, March 21, 1784, at 14:19 WIB. When the sun sets on that date, the *hilal*'s position is still at an altitude of 0 degrees 6 minutes 21 seconds with an elongation value of 2 degrees 53 minutes 58 seconds, meaning that the *hilal* has appeared. However, it is still impossible to see because its position is too low. Then *istikmal* was conducted, and the previous month was fulfilled for 30 days, so 1 Jumadil Awwal 1198 H fell on Tuesday, March 23, 1784. This astronomical data then shows that 25 Jumadil Awwal 1198 fell on Friday, April 16, 1784, according to the date written on the script.

The letter year 1286 H, in the opening part, says, "The Hijrah of the Prophet SAW 1286 years to the thirty days of the month of Muharram on Wednesday at the time of Dhuha at a blessed time, God willing, ...". The date in this manuscript is Wednesday, the 30th of Muharram 1286 H. Although it does not mention the Arabic name of the year, the date in this manuscript can be analyzed because it includes the month, year, and day. According to this date, astronomical analysis performed at the beginning of the month found that *ijtima`* as the determinant of the beginning of the month of Muharram 1286 H occurred on Monday, 12 April 1869 at 8:47 WIB. The position of the

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<sup>45</sup> *Ijtima`* is the time when the Moon and the Sun are in the same astronomical longitude.

*bilal* at that time was relatively high, with a value of 4 degrees at 21 minutes 42 seconds and an elongation of 5 degrees at 41 minutes 05 seconds, meaning that the *bilal* was already above the horizon. However, it was still challenging to see because the strong sunlight would disguise the illumination (*bilal*), which is very small, so it is tough to see the new moon. So with this condition, the beginning of the month of Muharram 1286 falls on Wednesday, 14 April 1869 AD, and if you look at the following month, namely the month of Safar, the position of the new moon that determines the beginning of the month still does not exist, meaning that the beginning of the month of Safar will fall on Thursday, 13 May 1869 AD automatically. The month of Muharram will only have 29 days.

Next, in the Hikajat Toean Telanai (HTT) manuscript, the closing sentence is written: "We have finished copying this saga to the date of the year 1278 Alif to the 20th of the month of Jumadil Akhir. At the end of Sunday, at 2 o'clock, the letter was written by Kemas Hasanuddin ibn Kemas Haji Mahyuddin Khatib Penghulu ibn Almarhum Haji Mas' ud Penghulu fi Bilad Palimban Kampung 17 Ilir Darul-Aman". Through *ijtima'*, the beginning of the month of Final Jumadil was determined on Monday, December 2, 1861, at 09:17:24 WIB. The position of the Hilal at sunset is  $3^{\circ} 05' 48''$  with an elongation of  $04^{\circ} 28' 54''$ . The condition of the crescent moon was still not too high. However, it was still possible to see it so that the beginning of the month of Jumadil Akhir could begin on Tuesday, December 3, 1861 AD, so that 20 Jumadil Akhir 1278 H coincided with Sunday, December 22, 1861 AD. This text only mentions the Hijri calendar without conversion to the Gregorian calendar, but astronomical analysis shows that Sunday is the exact day of 20 Jumadil Akhir; this shows the accuracy of the use of the calendar in this archive. The year letter used by the two archives above is the letter Alif, a characteristic of the Aboge Mataram calendar, but the year 1278 H is the Mataram version of the year of Zai. Similarities in sequence are also not found in the Aceh style of Aboge, where, according to the Aceh version, these two years are also included in the Zai year.

The next text is the manuscript entitled "This is the history of the Jambi Kingdom since 700 H (ISKJ)". This manuscript consists of several subtitles, some of which begin with colophons that use the Hijri and Aboge calendars simultaneously. In the opening part of page 26, for example, it says, "Hijrah Prophet SAW 1358 years and for the

year H the Khamsiyah number and the 17 days of the month of Jumadil Akhir on Thursday at eight in the morning ...". This text was written on Thursday, 17 Jumadil Akhir 1358 H, the year is called the year H. The naming of the year as the year H confirms that the calendar in this manuscript adopts the Aboge Mataram because 1358 is the 2nd year in the 8-year cycle of the Aboge system ala Mataram is like the calendar system used in the Connecting Stone Charter described earlier.

The mention of the Khamsiyah number is identical to the Khamsiyah calendar used by the Tariqa Shattariya in West Sumatra.<sup>46</sup> Astronomical data relating to the beginning of the month of Jumadil Akhir 1358 H shows that the first *ijtima`* of the month occurred on Monday, 17 July 1939, at 04:32 WIB. The height of the *bilal* at that time had reached 5 degrees 47 minutes and 51 seconds with an elongation of 8 degrees 59 minutes and 52 seconds, meaning that the *bilal* was above the horizon in a position that allowed it to be surveyed. Therefore, the beginning of the month of Jumadil Akhir 1358 will fall on Tuesday, 18 July 1939, and the 17th will fall on Thursday. This is in accordance with the date written in the manuscript. The other parts of the text that use the Aboge calendar also show the same type as this one, which uses the Aboge Mataram with the modification of Tariqa Shattariya in West Sumatra.

Analysis of the texts above shows that there are variations in the Aboge calendar models in Jambi manuscripts, as seen below:

**Table 5.** Aboge Style in the Jambi Manuscripts

No	Manuscript Title	Hijri Year	AD Year	Name of Year	Style
1.	K.35 Arsip Riau No. 68.2 entitled "Contract met Sultan Jambi, Anom, 21 Agustus 1681".	1092	1681	Ha	Mataram
2.	Piagam Serampas				
	Piagam Serampas uncomplete dated 1086	1086	1675	None	Mataram
	Piagam dated 1120 H	1120	1709	Ba	Mataram

<sup>46</sup> The naming of Takwim Khamsiyah is caused by the start of the day in the reckoning of the Shattariyah model starting from Thursday. See Ridhokimura Soderi and Darlius, "Eksistensi Maniliak Awal Bulan Oleh Tarekat Syattariyah Pariaman," *Jurnal Elfalaky* 6, 1 (2022): pp. 80–96.

No	Manuscript Title	Hijri Year	AD Year	Name of Year	Style
	Piagam dated 1173 H	1173	1759	Jim	Mataram-Aceh
3.	The oath between Klai Gede and Pringgabaya dated 1121 H	1121	1709	Waw	Mataram
4.	Twee piagems uit Djambi				
	a. The letter of 1182 H	1182	1769	Zai	Mataram
	b. The letter of 1198 H	1198	1784	Zai	Mataram
	c. The letter of 1286 H	1286	1869	None	Mataram
5.	Inilah Sejarah Kerajaan Jambi Sejak Tahun 700 H				
	P. 24	1185	1771	Ba	Mataram-Sumbar
	P. 18	1274	1858	Waw	Mataram-Sumbar
	P. 21	1275	1858	Dal	Mataram-Sumbar
	P. 20	1276	1859	Dal Alif	Mataram-Sumbar
	P. 17	1277	1860	Ha	Mataram-Sumbar
	P. 26	1358	1939	Ha	Mataram-Sumbar
6.	"Kitab oendang oendang adat Djambi" dated 1210	1210	1795	Dal	Mataram-Aceh
7.	Hikajjat Toean Telanai dated 1278	1278	1861	Alif	Mataram-?
8.	Piagam Batu Penyambung	None	None	Zai	Mataram

The summary in the table above shows that the use of the Aboge calendar in Jambi manuscripts began in the early days of the sultanate. This statement mainly refers to the Serampas Charter, which contains the Hijri calendar with the year 1086 H. Indications of the use of the Aboge calendar system can be seen from the way the date is mentioned in the manuscript text, which is written: "The Prophet's Hijrah SAW 1086 years in the year....". Although the information

conveyed in this manuscript is interrupted due to the condition of the manuscript, which is partly damaged, the style of mentioning the year used is identical to the writing style using Aboge in other manuscripts, so it is possible that the information that is interrupted after the sentence fragment "in the year..." is information related to the Aboge year letter. This analysis suggests that the Hijri calendar used in Jambi manuscripts does refer to the Aboge Mataram calendar system. However, this hypothesis still needs to be studied further.

### **Aboge Calendar and Jambi Historiography**

Astronomy has an essential role in the development of human civilization. Muhammad Ahmad Sulaiman, professor of astronomy at the National Research Institute of Astronomy and Geophysics in Egypt, said that astronomy is a miniature portrait of the progress of a nation's civilization.<sup>47</sup> Astronomy's contribution covers various lines of human life, ranging from social, scientific, religious, marine, state defense, and others.

In the social system, astronomy has a role in developing a nation. Historical records show that the nations that first studied astronomy in the 28th century BC, such as Egypt, Mesopotamia, Babylon, India, and China, initially aimed to produce a time calculation to determine the time of worship.<sup>48</sup> Furthermore, the measure of time, also known as the almanac, functions as a planning and evaluation of the activities of a community in the fields of agriculture, economics, and religious rituals.<sup>49</sup> Almanacs are also becoming increasingly important to human needs, and they tend to record their life cycle from birth, important

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<sup>47</sup> Alimuddin, "Sejarah Perkembangan Ilmu Falak," *Al Daulah: Jurnal Hukum Pidana Dan Ketatanegaraan* 2, 2 (2013): pp. 181–94.

<sup>48</sup> Discussion About the early development of astronomy in various countries see among others Alimuddin, "Sejarah Perkembangan Ilmu Falak; Nur Hidayatullah Al-Banjary, *Penemu Ilmu Falak: Pandangan Kitab Suci Dan Peradaban Dunia* (Yogyakarta: Pustaka Ilmu, 2013); Ahmad Musonnif, *Ilmu Falak Metode Hisab Awal Waktu Shalat, Arab Kiblat, Hisab Urfi Dan Hisab Hakiki Awal Bulan* (Yogyakarta: Teras, 2011); Najmuddin Saifullah and Mega Sukma, "Sejarah Penanggalan India," *Al-Marshad: Jurnal Astronomi Islam Dan Ilmu-Ilmu Berkaitan* 8, 1 (2022), pp. 27–38; Reza Akbar, "Sejarah Perkembangan Ilmu Falak Dalam Peradaban India Dan Keterkaitannya Dengan Islam," *Ilmiah, Jurnal Futura* 17, 1 (2017), pp. 50–72; Saifullah and Sukma, "Sejarah Penanggalan India."

<sup>49</sup> Ridho Kimura Soderi, "Penanggalan Mesir Kuno," *Al-Marshad: Jurnal Astronomi Islam Dan Ilmu-Ilmu Berkaitan* (2018): pp. 242–52.

events in life, and the time of death in calendar figures so that they are easier to remember or commemorate.<sup>50</sup>

In terms of power, astronomy has become one of the essential media in engineering social systems and strengthening the influence of power. King Julius Cesar, for example, made a calendar not only as a time setting but also as one of his political paths by naming the Calendar the Julian Calendar. Caliph Umar bin Khattab also determined the beginning of the month in the Hijri Calendar related to his governmental and religious needs. The confirmation of this existence was also seen in the reformation of the Julian calendar to become the Georgian Calendar because Pope Gregory XIII encountered errors in the days of the Vatican King. History records that there is support from the church to make this astronomical theory one of the rules that is even written in one verse in the Bible. When there are followers who disobey or disagree with the theory, they are considered apostates.

The Christian Calendar currently in general use is the Gregorian calendar introduced by Pope Gregory XIII.<sup>51</sup> In Indonesia, the new Gregorian calendar was officially used in 1910 with the *Wet op het Nederlandsch Onderdaanschap* law. Indonesian society previously used the Hijri calendar, including its variations, such as the Aboge calendar. Until the early 20th century, the kings of the archipelago still used this calendar as a time marker of their daily activities and the court administration. Colonialism completely changed the use of the calendar system in Indonesia.<sup>52</sup> Again, this shows how regional rulers determined the use of a calendar model.

Referring to the generality, it is not impossible to place the use of the Aboge calendar in Jambi in this power relation, bearing in mind that Mataram was once one of the poles of Islamic political power in Java at its time. This is especially clarified by the use of the Aboge calendar in the official manuscripts of the Jambi Sultanate. Moreover, apart from the folklore of a subordinate relationship with Mataram,

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<sup>50</sup> Maskufa, "Ilmu Falak," *Jurnal Penelitian Pendidikan Guru Sekolah Dasar* 6 (2016), p. 128.

<sup>51</sup> M Saifulloh et al., "Studi Komparasi Sejarah Dan Aturan Kalender Tahun Masehi: Julian Dan Gregorian," 4 (2022).

<sup>52</sup> Muhammad Himmat Riza and Ahmad Izzuddin, "Pembaruan Kalender Masehi Delambre Dan Implikasinya Terhadap Jadwal Waktu Salat," *Ulul Albab: Jurnal Studi Dan Penelitian Hukum Islam* 3, 2 (2020), p. 163, <https://doi.org/10.30659/jua.v3i2.7995>.

Jambi does have a historical connection with Java. However, to analyze the context of the use of the Aboge calendar in Jambi historiography, it is necessary to focus on the context of the date between the period of the Jambi-Mataram relationship narrated in the manuscripts, the emergence of the Aboge calendar system and the colophon of the Jambi manuscript which used the Aboge calendar. The emergence of the dualism of the Aboge calendar style between Mataram and Aceh should also be considered in the analysis.

**Table 6.** Comparison of the Manuscript Colophon with the Aboge System

The period of folklore on the Jambi-Mataram relationship in the manuscripts	15th to early 16th century
Beginning of the Aboge calendar	Start at 1633 M
Colophon of the Jambi manuscripts containing the Aboge date	Between the 17th to 20th centuries, starting about 1675
Jambi-Mataram relationship in the Colonial archives	About the middle of 17th century, starting about 1640s

Although the story of the Jambi-Mataram relationship in the HNJ, HTI, and ISKJ manuscripts has a folklore nuance, colonial records show that Jambi had voluntarily made itself a vassal of Mataram between the 1640s and at least the 1660s or later. Referring to VOC reports in the Dutch National Archives, Andaya explains that Jambi rulers routinely visited Mataram with tribute during this period. Not only giving tribute, but colonial records also mention that Mataram's influence on the Jambi Sultanate also occurred in the cultural aspect, where they even imitated Javanese dress and court manners at the Jambi palace.<sup>53</sup> From this perspective, it can also be understood why the titles of Jambi nobles are also partly like Javanese titles rather than Malay terms. Only when the center of Javanese political power began to split did Jambi change course from Mataram to Banten.

Despite its brevity, the period of the Jambi-Mataram relationship left an important mark on communal memory, which persisted into the following centuries and found expression in Jambi's historical folklore. The use of the Aboge calendar, a legacy of this relationship,

<sup>53</sup> Barbara Watson Andaya, *Hidup Bersaudara: Sumatra Tenggara pada Abad XVII dan XVIII*, trans. Septian Dhaniar Rahman and Aditya Patama (Yogyakarta: Ombak, 2016), p. 116-128.

continued in manuscript writing until the 20th century. This enduring use of the Aboge calendar is a tangible testament to the Historical relationship between Jambi and Mataram.

The table shows that the Aboge calendar in Jambi was used similarly to the period of close relations between Jambi and Mataram recorded in colonial records. This period may be earlier, but the information that the author has managed to collect is limited to the texts explained previously. Referring to Jambi's motivation to build relations with Mataram as the center of political power in Java at that time, it is acceptable that the use of this calendar began in the early decades of the Aboge calendar being introduced by Sultan Agung of Mataram.

However, the historical context of Jambi's socio-political conditions in the period can be considered "the search for self-identification" of the regional socio-political developments. The manuscripts' dates, ranging from the late 18th century to the early 20th century, were when Jambi entered a crucial period of integrating Islam and custom. All texts that talk about the Jambi-Mataram relationship were written in this period. During this period, at least two Jambi law texts with Islamic nuances were written, and several texts related to the application of Islamic law were found. From a political perspective, Sulthan Thaha (1816 -1904) of the Jambi Sultanate also tried to establish diplomatic relations with the Ottoman Empire during this period.<sup>54</sup> Thus, the use of the Aboge calendar in Jambi shows the social-political influence of Mataram on Jambi. The acculturation of Mataram culture with its Islamic Javanese calendar system is clearly seen in the Aboge Jambi calendar, both from the system and the presentation of the calendar in several manuscripts.

The calendar system as a cultural product affects various Jambi manuscripts with different accompanying themes. Using this Aboge system in the calendar provides sufficient evidence for the power relations between Jambi and Mataram. Although some manuscripts were influenced by Aceh (Syiah Kuala) and Minangkabau (Tariqa Shattariya) styles, it is undeniable that the calendar system used is the

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<sup>54</sup> The discussion related to the tendency of the integration of Islam and custom in Jambi around this period see Irmawati Sagala, *Islam dan Adat dalam Sistem Pemerintahan Jambi Masa Kesultanan dan Kolonial pada Tahun 1855-1942* (Yogyakarta: Ombak, 2021), chapter IV and V.

Mataram-style system because the influence is found only in a few parts and in the recent period.

### **Conclusion**

Although in small numbers, several Jambi manuscripts use colophons in a combination between the Hijri and Aboge calendars. The analysis of these manuscripts shows that some of them fully adhere to the Mataram system, while some were influenced by the Aceh (Syiah Kuala) and West Sumatra (Tariqa Shattariya) styles, which is a modification of the Mataram system. The writing of the Aboge colophon is only partially complete. Some only mention the year or date and year without providing additional information to determine the conversion to the Hijri or Christian calendars accurately. Therefore, a complete conversion of the date can only be done on a portion of the manuscript.

The use of the Aboge calendar shows the influence of Mataram in Jambi both in political and cultural aspects. This acknowledgment of Mataram's influence is related to Jambi-Mataram historical ties and a symbolic reference to Islamic political power in Java. The existence of the influence of the Syiah Kuala model in this manuscript also adds to the evidence of the relationship between Jambi and Aceh, which in several previous local publications mentioned that Sultan Thaha had studied in Aceh, where he received the additional name of Saifuddin. The influence of the Tariqa Shattariya style from Minangkabau that appears in the 20th-century manuscript (ISKJ Manuscript) also shows the strengthening of Minangkabau cultural influence in the post-sultanate era in Jambi. The Jambi-Minangkabau relationship, which had been formed for a long time and had strengthened in political relations in the 17th and 18th centuries, became less significant in the following centuries. However, the large number of ethnic Minangkabau people who settled in the Jambi highlands caused the strength of the Jambi-Minangkabau cultural relationship until the contemporary era. []

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