Teosofia: Indonesian Journal of Islamic Mysticism
Vol. 12, No. 1, 2023, pp.99-118
e-ISSN: 2540-8186; p-ISSN: 2302-8017
DOI: 10.21580/tos.v12i1.6879

Between Legalism and Mystical Intuism: Sunan Kalijaga's Qibla Direction in Pati and Demak Grand Mosque

Muhammad Nurkhanif[1*], Raharjo[2], Najahan Musyafak[3]

[1] Department of Islamic Astronomy, Faculty of Shari'a and Law, Universitas Islam Negeri Walisongo Semarang, Indonesia.

[2] Department of Islamic Religious Education, Faculty of Education and Teaching Sciences, Universitas Islam Negeri Walisongo Semarang, Indonesia.

[3] Department of Communication and Islamic Broadcasting, Faculty of Da'wah and Communication, Universitas Islam Negeri Walisongo Semarang, Indonesia.

* Corresponding Author: muhammadnurkhanif@walisongo.ac.id

Article History:
Received: 19 Nov 2020
Accepted: 12 June 2023
Published: 16 June 2023

How to cite this article:
Nurkhanif, Muhammad, Raharjo, and Najahan Musyafak, "Between Legalism and Mystical Intuism: Sunan Kalijaga's Qibla Direction in Pati and Demak Grand Mosque" *Teosofia: Indonesian Journal of Islamic Mysticism* 12, no 1 (2023): 99-118. https://doi.org/10.21580/tos.v12i1.6879

Abstract: This study aims to discover the process of determining the direction of the qibla by Sunan Kalijaga (one of Walisongo), employing a mystical and intuition (divine inspiration) method. This study is a qualitative field research using a socio-cultural approach. The research objects are the Baiturrahim Gambiran Pati Mosque and Demak Grand Mosque, Central Java. These mosques were built by Sunan Kalijaga. The results of this study revealed why the people of Gambiran Pati and Demak Grand Mosque still use the Sunan Kaljaga version of the qibla direction compared to the qibla direction using scientific technology. Some factors that influence include, *first*, the historical value factor of the Baiturrahim Mosque and Demak Grand Mosque as the guardian mosque and also the legendary figure of Sunan Kalijaga. *Second*, The socio-cultural characteristics of the Gambiran Pati and Demak communities are familiar with the mystical Kejawen.

Contribution: This research contributes to understanding the method of determining the direction of the qibla by Sunan Kalijaga using mystical and intuitive approaches. It focuses on two historical mosques, the Baiturrahim Mosque in Gambiran Pati and the Grand Mosque of Demak, considering their historical, religious, and socio-cultural factors.

Keywords: Sunan Kalijaga; historical mosque; *qibla* direction; Demak and Pati; mystical kejawen

Introduction

Facing the qibla is one of the responsibilities that must be fulfilled in performing prayer. If someone intentionally and consciously directs themselves towards a direction other than the qibla, their prayer is considered invalid. If the qibla direction is not clearly defined, it is obligatory to make an effort to determine it before commencing the prayer. If it is later discovered that the prayer is facing a direction other than the qibla, it is still valid, and there is no need for repetition or *qadha*. However, if the error is realised while in prayer, the individual must change the body's direction towards the qibla without interrupting the prayer.

In the study of Islamic jurisprudence (fiqh), it is clear that one of the legal requirements for the *fard* (obligatory) and *sunnah* (recommended) prayers is to face the qibla. According to Slamet Hambali, knowing the direction of the qibla is an obligation for every Muslim community, as in performing prayers, they must face the qibla as stated in the words of Allah. Allah says in QS. al-Baqarah verse 144:[1]

> "Indeed, we (often) see your face looking up to the sky, then we will indeed turn you to the qibla that you like. Turn your face towards the Grand Mosque; Everywhere you are, turn your face on Him, and surely people (Jews and Christians) who were given the Al-Kitab (Torah and Gospel) know that turning to the Grand Mosque is true from their Lord. Allah never neglects what they do ". (Surah al-Baqarah (2): 144)."

While facing the qibla is a general requirement for all Muslims worldwide during prayer, there are specific considerations for those who are physically in Mecca or have a direct line of sight to the Ka'bah; first, People in Makkah, for individuals physically present in Makkah, facing the qibla is inherent, as they are already situated in the holy city where the Ka'bah is located. In this case, their natural orientation during prayer aligns with the qibla. *Second,* People with a Direct Line of Sight to the Ka'bah, Muslims who can directly see the Ka'bah from their location, must face it during prayer. This includes those in certain parts of Mecca or areas with a clear line of sight to the Ka'bah.

The significance of facing the qibla lies in the unity it fosters among Muslims, regardless of their geographical locations. It reflects a shared focus and a sense of connection to the central sacred site in Islam. This unity in prayer

[1] Slamet Hambali, *Ilmu Falak I: Penentuan Awal Waktu Shalat Dan Arah Kiblat Seluruh Dunia* (Semarang: Program Pascasarjana IAIN Walisongo Semarang, 2011), 67.

direction symbolises the global Muslim community's cohesion and shared worship.

It's important to note that determining the qibla direction for prayer in locations distant from Mecca often involves using tools like compasses or digital applications that provide accurate qibla directions based on the person's specific location on the Earth's surface. This technological assistance ensures that Muslims worldwide can fulfil the requirement of facing the qibla during their prayers.

Ahmad Izzuddin suggests that verifying and correcting the qibla direction of mosques and prayer rooms is necessary because the current situation in society reveals numerous variations in qibla directions, even within the same vicinity or area.[2]

On this issue, the scholars differed, as explained by Imam Shafi'i, stating that people who are far away and cannot see the Ka'bah directly must make serious efforts (*al-ijtihad*) to know the direction—the correct qibla by using the directions of the universe. According to Imam Maliki, who is outside Makkah or far away and unable to determine the direction of the qibla with certainty (*'ain al-Ka'bah*), he can use *jihah al-Ka'bah*.[3]

Imam Maliki and Imam Hanbali agree that when Muslims are far from Mecca and cannot determine the exact qibla due to the Earth's curvature or other factors, they can adopt a more flexible approach. Instead of facing the specific location of the Ka'bah, they can face the general direction, acknowledging the challenges posed by long distances. Imam Maliki shares a similar perspective with Imam Hanbali, stating that distant individuals should orient themselves toward the qibla in the direction of the Ka'bah. [4]

The problem of the qibla direction in historical mosques built by the saints is a controversy or issue that can arise in Islamic history. Some mosques may face inaccuracies in the qibla direction due to limitations in measuring tools during the construction period. Despite having historical and religious value, this issue can be addressed through research or corrections using modern technology

---

[2] Ahmad Izzuddin, *Ilmu Falak Praktis: Metode Hisab-Rukyat Praktis Dan Solusi Permasalahannya* (Semarang: Pustaka Rizki Putra, 2012), 137.

[3] Abi Hasan Ahmad bin Muhamad bin Ahmad bin Ja'far al-Quduri al-Hanafi Al-Baghdadi, *Mukhtasar Al-Quduri Fi Al-Fiqh Al-Hanafi* (Beirut: Dar al-Kutub al-Ilmiyah, 1997), 26.

[4] Muhammad Abdullah Al-Maqdisi, *'Umdat Al-Fiqh Fi Al-Mazhab Al-Hanbali* (Beirut: Maktabah al-'Adriyyah, 2003), 23.

to determine a more accurate qibla direction. This approach must be undertaken with caution and respect for the associated historical and religious values.

One intriguing aspect for astronomers is the alignment of mosques constructed by revered individuals of Allah. In Indonesia, nearly all custodians have designated mosques as centres for spreading Islamic teachings and as hubs for community religious education. The two historical mosques associated with Sunan Kalijaga are particularly noteworthy: the Baiturrahim Mosque and the Demak Grand Mosque. These mosques hold a sacred significance, especially in determining the direction of the qibla by Sunan Kalijaga, using a method deemed mystical and mythical by the local community, based on intuition or divine inspiration. This practice continues to captivate people today.

The Baiturrahim Mosque was initiated by Sunan Kalijaga, who erected four wooden pillars to support the central roof. The establishment of the Gambiran Mosque occurred just before Sunan Kalijaga and other guardians founded the Grand Mosque of Demak. The Baiturrahim Mosque has a close relationship with the Grand Mosque of Demak; in its history, the Grand Mosque of Demak was founded by other saints together in a single night.[5]

Literature Review

First is a study conducted by Veli İLÇİ and others titled "Investigation on the Accuracy of Existing Qibla Directions of the Mosques from Different Periods: A Case Study in Corum City, Turkey." This study aims to introduce two approaches, namely using trigonometric formulas and sun qibla time, to accurately determine the qibla direction of mosques according to Islamic criteria. Eight mosques in Corum City, Turkey, built in various periods (14th, 16th, 17th, and 21st centuries) were examined. The results indicate that recently built mosques have higher accuracy in aligning with the Kaaba, while older mosques show more deviations. However, all deviations remain within acceptable limits according to Islamic criteria.[6]

Second, the research conducted by Reza Aakbar & Riza Afrian Mustaqim titled “Theoretical Study of The Use Of The Polaris Star As A Reference For The

[5] Purwadi, *Babad Demak : Sejarah Perkembangan Islam Di Tanah Jawa* (Jogjakarta: Tunas Harapan, 2005), 39.

[6] Veli İlçi, İbrahim Murat Ozulu, and Reha Metin Alkan, “Investigation on the Accuracy of Existing Qibla Directions of the Mosques from Different Periods: A Case Study in Çorum City, Turkey,” *Tehnicki Vjesnik - Technical Gazette* 25, no. 6 (December 2018): 1642–49, https://doi.org/10.17559/TV-20170226111205.

North Point In Determining The Qibla Direction".[7] Determining the qibla direction requires accurate knowledge of the north point. While compasses are not encouraged in buildings, an alternative method involving Polaris, besides compass and *istiwa* stick, is explored in this study. Based on theoretical analysis and secondary data, the research concludes that Polaris is challenging to observe near the equator (below latitude 10°N), leading to inaccurate results for determining the qibla direction. However, it is considered accurate for determining the qibla direction in regions far north from the equator (latitude above 10°N), where Polaris is visible at a higher angle.

Third, "Determination of Qibla Directions According to Islamic Astronomic Science (Case Study of Qibla Directions in Indonesia)". This study addresses the ongoing controversy in Indonesia regarding the determination of the qibla direction, involving two methods: the traditional method based on the sunset and the shadow of the sun on the Kaaba and the second scientific method using calculations and astronomical data. The differences between these methods have led to prolonged debates in the Muslim world. The researchers aim to critically examine the accuracy of both approaches in determining the direction of qibla in Indonesia.

Fourth, the research conducted by Tri Pangestu Utamia and Muhammad Awaludin titled "Komparasi Arah Kiblat Masjid Kuno Songak dan Majis Kuno Bayan di Lombok" The Songak ancient mosque and the Bayan ancient mosque, located on Lombok Island, hold historical significance in the spread of Islam in the region. These mosques are actively maintained and preserved, serving as places of worship and venues for celebrating Islamic holidays and local cultural events. It becomes crucial to verify the qibla direction of these ancient mosques, as proper alignment is a prerequisite for valid prayers. This study reveals a deviation from the qibla direction in both historic mosques, with the Bayan ancient mosque being considered to have a minor deviation from the Songak old mosque.[8]

---

[7] Reza Akbar and Riza Afrian Mustaqim, "Theoretical Study of the Use of the Polaris Star As a Reference for the North Point in Determining the Qibla Direction," *Jurnal Ilmiah Islam Futura* 22, no. 1 (February 11, 2022): 16, https://doi.org/10.22373/jiif.v22i1.9411.

[8] Tri Pangestu Utami and Muhammad Awaludin, "Komparasi Arah Kiblat," *AL - AFAQ : Jurnal Ilmu Falak Dan Astronomi* 3, no. 1 (July 19, 2021): 77–88, https://doi.org/10.20414/afaq.v3i1.3571.

Method

This research method is qualitative, adopting a phenomenological approach to understand the meaning of the mystical experiences conducted by Sunan Kalijaga in determining the qibla direction in two historical mosques, namely the Demak Grand Mosque and the Grand Mosque of Gambiran Pati. This qualitative study aims to analyse in-depth the comparison between the determination of the qibla direction from the perspectives of science and intuition in the quest for truth. Additionally, the research focuses on finding convergence points in determining the direction of qibla in historical mosques.

Results and Discussion

Qibla of Baiturrahim Mosque and Demak Grand Mosque

In historical narratives, the Baiturrahim Mosque is a unique and "sacred" mosque akin to the Demak Grand Mosque in Central Java, the Grand Mosque of Sunan Ampel in East Java, and other revered mosques. The sanctity attributed to the Baiturrahim Mosque, as determined by Sunan Kalijaga, later evolved into a dogma for the mosque's community. This dogma, inspired by the guardianship and harmony associated with Sunan Kalijaga, has led the community of the Baiturrahim Mosque to be hesitant about altering the direction of the Baiturrahim Mosque, even when prompted by the astronomical approach, despite direct verification by the Pati district MUI (Majelis Ulama Indonesia).

Regarding the qibla direction of the Baiturrahim Mosque in Gambiran Pati, historically, this mosque is closely related to the Grand Mosque of Demak, founded by guardians together in one night. The central roof is supported by four giant wooden pillars, one of which is not made of a single solid log but from several beams (*tatal*) tied together. The pillar is a donation from Sunan Kalijaga, compiled from pieces of blocks left over from the work of other guardians. On the night of the building, he arrived late. Therefore, he needed help to produce a complete job.

Being the oldest mosque in Pati Regency, the Baiturrahim Mosque's qibla direction determination process is intricately tied to the supernatural abilities (*karamah*) of Sunan Kalijaga. During the construction process, particularly when he erected the four pillars along the central axis of the mosque building, it was ensured that they were aligned with the qibla direction. This mirrors Sunan

Kalijaga's approach when determining the qibla direction for the Demak Grand Mosque.[9]

Regarding the Grand Mosque of Demak, the qibla direction underwent verification on Thursday and Friday (15 and 16 July 2010), precisely during the *yaumirrashdil qibla* (the day when the sun is directly above the Ka'bah, causing its shadow to point toward the qibla). The Central Java Rukyah Hisab Team, which included the author and KH. Drs. Slamet Hambali, in collaboration with Badan Hisab Rukyah Demak, conducted a re-measurement of the qibla direction of the Grand Mosque of Demak. The mosque's *takmir* (chairperson), including KH, witnessed this re-measurement. Drs. Muhammad Asyik also serves as the Deputy Regent of Demak. Utilising various methods such as determining true north with the sun's shadow, employing theodolite and GPS, and applying the *rashdil Qibla* method, consistent data was obtained at 16.27 WIB on that day.[10]

This indicates that the Grand Mosque of Demak, located at latitude 6°53'40.3" S and longitude 110°38'15.3" E, has a qibla direction of 294°25'39.4" UTSB or 24°25'39.4" from west to north. This directional information implies that the qibla alignment of the Grand Mosque of Demak is less than 12°1' to the north. The outcomes of this measurement were shared with kiai and scholars across the regency on Friday, 23 July at 14:00, involving 150 kiai and also attended by the Regent, Drs. H. Tafta Zani MM, along with an official from the Ministry of Religion in Demak.[11]

In Noviyanto Aji's perspective, on 24 May 2010, the Grand Mosque of Demak was recognised as a mosque with a celestial or divine legacy. The mosque's inception remains a mystery, emerging unexpectedly on the hill of Ketilang Temple in what is now Purwodadi Grobogan Regency. It was later relocated 2 km to Kondowo hamlet and another 1 km to Terkesi Village in Klambu District. Legend has it that locals initially dubbed it "tiban." Nevertheless, thorough research reveals its roots in the construction of the Glagahwangi mosque, a pivotal moment in Javanese mosque history. Glagahwangi eventually evolved into the Demak Mosque, and the constructed mosque gained fame as the renowned Demak Grand Mosque.[12]

---

9 Fadholi, "Wawancara Dengan Fadholi (Ta'mir Masjid Baiturrahim Gambiran Pati" (Pati, 2017).

10 Ahmad Jaelani et al., *Hisab Rukyat Menghadap Kiblat* (Semarang: Pustaka Rizki Putra, 2012), 246.

11 Jaelani et al., *Hisab Rukyat Menghadap Kiblat*.

12 Jaelani et al.

In his historical account, it is narrated that Sunan Kalijaga received a divine sign known as *antakusuma*, described as a package believed to contain a blessed shirt gifted by Prophet Muhammad SAW. This miraculous package supposedly descended from the sky during a deliberation to ascertain the qibla direction for the Demak Mosque. Sunan Giri oversaw the proceedings. During the trial, chaired by the founder of the Giri Kedaton kingdom, disagreements arose regarding the legitimate direction of qibla. The participants remained undecided until just before Friday prayer. Sunan Kalijaga intervened by positioning himself amidst the disputing participants. Legend has it that Prince Tuban held the Demak Mosque in his left hand while waving his right hand towards the Grand Mosque in Makkah. Using this method, the qibla direction for the Grand Mosque of Demak was determined and demonstrated to the audience. Once the trial participants acknowledged the validity of the qibla direction, Tumenggung Wilatikta, the son of the Duke of Tuban, released the two mosques he had been holding.[13]

According to the author, it is highly reasonable and feasible that the technique employed to ascertain the qibla direction of the Baiturrahim Mosque mirrors the historical account mentioned earlier. Examining the history of the Baiturrahim Mosque, which predates the Demak Grand Mosque, it seems natural that Sunan Kalijaga's method and procedure were replicated when establishing the qibla direction for the Demak Grand Mosque. From a straightforward perspective, the process undertaken by Sunan Kalijaga to determine a mosque's qibla direction, as widely circulated in society, falls under the category of employing religious approaches and intuition to acquire scientific truth, eventually evolving into a "myth."

Indeed, the procedure within astronomy differs significantly from the process used to ascertain the truth in determining the qibla direction. Astronomy, as a scientific discipline, relies on empirical and theoretical studies. Consequently, in addressing the perceived "myth" surrounding the determination method from an astronomical perspective, the author initially outlines the astronomical analysis of the qibla direction for the Baiturrahim Mosque. This analysis encompasses a systematic exploration involving steps, methods, and scientific processes, progressing from basic to modern approaches.

[13] Fadholi, "Wawancara Dengan Fadholi (Ta'mir Masjid Baiturrahim Gambiran Pati."

Public Reaction Following the Verification of Sunan Kalijaga's Qibla Orientation

From the findings of gathering information about the perspectives on the Baiturrahim Mosque and the Grand Mosque of Demak across diverse professions and elements, the authors can classify them into two distinct viewpoints—those in favour and those against. Supportive factions advocating for a change in the mosque's heritage direction provide two primary grounds. *Firstly*, it is rooted in fiqhiyah, drawing on foundational principles such as a). For individuals unable to directly observe the Ka'bah or residing far from its location, there is a preference for an opinion necessitating ijtihad, encouraging efforts to align oneself with the actual direction of the Ka'bah through the aid of more advanced and contemporary scientific knowledge. b). The mihrab, as determined by the guardian or mujtahid, may be altered if an error in the qibla direction is identified. c). The ijtihad conducted by Sunan Kalijaga persists alongside contemporary ijtihad practices. While both coexist, opting for a new ijtihad supported by more compelling technological considerations is preferable.

Meanwhile, the contra group, which wants the direction of the qibla of the Sunan Kalijaga Mosque to remain as before (unchanged), has two bases. First, it is from the side of fiqhiyah. Some of the basics of fiqhiyah that are taken include: a). People who can't see the Ka'bah directly or far from the Ka'bah prefer an opinion that says the direction of the qibla is just jihad al-Ka'bah. Most scholars believe this opinion, and it is difficult to prove by bi al-ain that people who pray are right towards ain al-ka'bah, b). The direction of the qibla of a mosque that the alim has determined, let alone a wali, becomes an i'timâd that has been used for years by Muslims, and then the direction of the qibla cannot be changed. Because a wali is a figure who is genuinely always close and obedient to Allah SWT without being accompanied by immorality, being awake (*mahfuzh*) and controlling all his affairs, c). The Baiturrahim Mosque in Gambiran Pati and the Grand Mosque of Demak are panaceas for Muslims in Gambiran Pati. They believe that what has been determined by Sunan Kalijaga is true. If it changes, it is feared that it will shake the *ukhuwah* of the Muslims. So, to avoid this, it is better if we follow the direction of the qibla that Sunan Kalijaga has set. In addition, preserving their ancestral heritage is a good tradition for them.[14]

[14] Amal Hamzah, "Wawancara Dengan Amal Hamzah Di Kediamannya," 2017.

The Convergence Point of Sunan Kalijaga's Qibla Orientation and the Science of Astronomy

In the preceding discussion, the author clarified that Sunan Kalijaga's approach to establishing the qibla direction for the Baiturrahim Mosque mirrors the method employed in determining the qibla for the Demak Grand Mosque—relying on religious intuition as a means of approaching truth. Conversely, this contrasts astronomy, characterised by scientific principles and a rational approach to seeking truth. The outcomes of these two approaches diverge, one anchored in the mystical significance of the guardian's blessings and the other grounded in astronomical mathematical methodologies. Despite these differences, both approaches represent distinct paths toward uncovering scientific truth. The question arises: where do these approaches converge?

Setting aside popular assumptions and perceptions regarding the sanctity of Sunan Kalijaga's role in determining a mosque's qibla direction, the author posits that the method employed by Sunan Kalijaga essentially serves as a symbolic representation of determining the qibla direction using the sun's position or its shadow (local *Rashd al Qibla*). The author interprets Sunan Kalijaga's intuition method within the celestial science framework as an application of establishing the qibla direction based on the initial direction derived from the sun, later confirmed by the sun's shadow. However, it is acknowledged that the steps and processes in determining the direction of the qibla through local *Rashd al Qibla* could be more flawless according to modern academic studies in contemporary astronomy.

It is presumed that during that moment, Raden Said (Sunan Kalijaga's real name) rose and offered a resolution by providing visual aids to the trial participants. His right hand, described as "waving while holding the Masjid al-Haram in Mecca," likely indicated the sun's position as it intersected the qibla circle at a specific location. This intersection would cause all objects to stand perpendicularly at that time to display the qibla direction for that particular place. Examining the historical context of the construction of the Baiturrahim Mosque on 9 October 1445 AD, it becomes evident that, at that time, the sun's setting direction inclined towards the south, as indicated by the negative value of the sun's declination at approximately -9°. The local *Rashd al Qibla* hour for the Baiturrahim Mosque was 10:56:00.88 WIB.

Meanwhile, the left hand of Raden Said, described as "holding the mosque," likely indicated the representation of an upright object pointing towards the qibla, symbolising the direction of a mosque. Subsequently, this direction was

demonstrated by leveraging the sun's position, and the session participants observed the measurement of the qibla direction through the local *Rashd al Qibla* method on 9 October 1445 AD. During the construction of the Baiturrahim Mosque and the Demak Grand Mosque in that era, the absence of theodolites, GPS, or Google Earth was apparent. Astronomy might not have shown significant interest in such studies during that time. Nevertheless, the practice of measuring the qibla direction using the Rashd al Qibla method, with the sun as a reference point, has existed since immemorial.

Subsequently, the narrative surrounding Sunan Kalijaga evolved into a myth. One hypothesis suggests that myths are historical event accounts that undergo continual embellishment, eventually elevating historical figures to the status of deities. Initially, myths emerged as allegorical representations or personifications of natural phenomena, but over time, they started to be interpreted literally. The central characters featured in myths typically include gods, humans, and supernatural heroes presented in sacred stories. Myths are disseminated to convey religious experiences, embody specific attributes, and serve as instructional material within a community. In societies where myths are propagated, they are often perceived as accounts of actual events from ancient times. Generally, these myths receive endorsement from rulers or religious leaders/teachers closely associated with a particular religion or spiritual teachings.

In reality, the qibla orientation, according to Sunan Kalijaga, for the Baiturrahim Mosque and the Demak Grand Mosque did not align with the astronomically determined qibla, deviating by approximately 31° from the mosque's construction direction and the intended qibla direction. In this context, legal scholars held differing views on the acceptable deviation (*inhiraf*) from the qibla direction. According to the Shafi'i school of thought, facing the qibla entails the obligation to face directly *'ain al-Qibla* within the visual range of human eyes, allowing a tolerance for deviation or tilt from *'ain al-Ka'bah* by up to 20° to the right or left; surpassing this limit is considered departing from the qibla direction. Conversely, Hanafi scholars stipulated that facing the qibla obligates directing the entire face or part of the face, referred to as *jihat al-asghor*, with a permissible slope of *'ain al-Ka'bah* up to 35°; exceeding this limit is considered deviating from the qibla direction. Scholars from the general ulama community emphasised facing the qibla specifically towards the Ka'bah, assuming the qibla direction lies between West and East. This orientation, *jihad al-kubro*, spans from the right to the left of the Ka'bah, with the visual limit of '*ain al-Ka'bah* set at 90°. The

majority of scholars maintained that facing the qibla entails directing prayers toward one of the four directions where the Ka'bah is situated, allowing for a slope from *'ain al-Ka'bah* of 45° to the right and 45° to the left; surpassing this limit is regarded as deviating from the qibla direction.

The points of convergence between Sunan Kalijaga's methods and modern astronomy can be summarised as follows: Both represent approaches to acquiring scientific truth, with Sunan Kalijaga employing a religious-intuitive method and modern astronomy relying on a scientific and rational approach. Both utilise nature as a reference point, precisely with the assistance of the sun. Both involve processes of *ijtihad istbat* in determining the direction of qibla. Both are deemed valid from the perspective of the fiqh school of thought.

In this context, astronomy serves as the initial reference point for determining the accurate qibla direction in accordance with the concept of facing the qibla (whether *'ain al-Ka'bah* or *jihat al-Ka'bah*). Mathematically, astronomical calculations aim to yield results that closely align with the truth. Within the philosophy of science, astronomy is positioned as logos—a scientific discipline employing a method grounded in rational principles to ascertain the qibla direction. In practical terms, if the qibla direction of a mosque is not precisely aligned, the prayer remains valid, falling under the category of permissible deviations in the qibla direction acknowledged by fiqh scholars.

Socio-Cultural of Pati and Demak Communities

It is undeniable that Indonesia is a diverse nation, evident in the myriad religions, beliefs, traditions, arts, and cultures that have thrived and evolved throughout the nation's history. The significance of religion and belief is deeply ingrained in the social fabric of the Indonesian people. The coexistence of various backgrounds in life, traditions, customs, and cultures has given rise to many beliefs that have flourished and matured over time. Within every local belief system, two crucial elements stand out i.e., locality and spirituality. The regional context heavily influences spirituality, while spirituality, in turn, adds vibrancy to the local setting. These two elements are interconnected, working in tandem and forming an integrated whole. The principles of a local belief system give birth to spirituality, manifesting in spiritual expressions and ritual practices unique to each tribe in specific regions. The expression and practice of spirituality inherently involve elements of locality, such as traditions, customs, and local cultural arts. These elements seamlessly combine, uniting with spirituality to create a harmonious integration. This integration reflects

the rich tapestry of Indonesia's pluralistic society, where diverse beliefs coalesce with local customs to form a unique and vibrant cultural landscape.[15]

In this framework, the domain of belief is intricately intertwined with tradition, custom, art, and culture. Conversely, the realms of tradition, customs, arts, and culture are inseparable from the domain of belief. The belief system that takes shape under specific conditions and circumstances in a given society significantly influences the evolution and progress of religion.

Within the socio-cultural context, the inhabitants of Pati and Demak, situated geographically in Central Java, are integral parts of the broader Java island. Sukowahono, the village head of Gambiran Pati, notes that most Gambiran residents are predominantly farmers with educational attainment generally below junior high school level. The livelihoods of the people in Pati and Demak primarily revolve around agriculture. The daily interactions of these farmers are deeply entwined with the challenges posed by natural factors, eventually leading to nature exerting a substantial influence. The formidable dominance of nature over village communities further contributes to the prevalence of superstitions. In this scenario, superstitions manifest as a manifestation of their fear or submission to nature, stemming from an inability to playfully comprehend and control the natural forces.[16]

Such a mindset shapes a resilient character and spiritual essence among the people of Pati and Demak, particularly in mystical aspects, making them more receptive to incorporating doctrines into their lives. As exemplified in this study, a notable instance revolves around accepting the qibla direction legacy attributed to Sunan Kalijaga, as delineated by the conceptual framework termed "myth."[17] Alternatively, the religious-intuitive aspect leaves a profound and indelible mark on their consciousness, solidifying into an irrevocable doctrine. Sunan Kalijaga's legacy embodies a dual facet, serving as a revered Javanese guardian figure held

---

[15] Kementerian Agama R.I. Badan Litbang dan Diklat, *Dinamika Sistem Kepercayaan Lokal Di Indonesia* (Jakarta: Puslitbang RI, 2012), 3.

[16] Taufik Hidayat, Nurmala K Pandjaitan, and Arya Hadi Dharmawan, "Kontestasi Sains Dengan Pengetahuan Lokal Petani Dalam Pengelolaan Lahan Rawa Pasang Surut," *Sodality: Jurnal Sosiologi Pedesaan* 4, no. 1 (2010): 1–16, https://doi.org/10.22500/sodality.v4i1.5855.

[17] Myth is a belief about everything that has not been known scientifically and why. There is a reason why people accept myths: because of their limited knowledge, experience, and thoughts. Even though their curiosity continues to develop, myths are the most satisfying answers before they are more relevant. see Heri Purnama, *Ilmu Alamiah Dasar* (Jakarta: Rineka Cipta, 2010), 17.

in high esteem while also reflecting the widespread affinity and harmony of the Javanese population towards "kejawen," enriched with mystical nuances influenced by Hindu-Buddhist teachings.[18]

In the traditional fabric of community existence, myths guide social interactions. In Java, where many communities adhere to traditional practices from the kingdom era, myths instil values in successive generations. The primary objective is to uphold decorum, sustain environmental balance through thoughtful stewardship, foster self-care, and cultivate respect for the well-being of others.[19]

Sunan Kalijaga's Mystical Qibla Direction

As a proponent of Islam, Sunan Kalijaga frequently incorporates the cultural and traditional elements of the Javanese people, known for their familiarity with the mystical aspects of Kejawen. Sunan Kalijaga adeptly blends Kejawen mysticism with Islamic teachings. The author posits a significant assumption that Sunan Kalijaga employed a mystical approach rooted in Javanese historical narratives to determine the direction of mosques in qibla. This method was chosen strategically to facilitate acceptance without engendering critical thinking or scepticism among the people. Sunan Kalijaga leveraged the theosophical inclinations of the Gamiran community and his revered status as a guide to convey doctrinal messages. The intricate process of determining the qibla direction through astronomical and mathematical means would have been challenging for the Javanese to comprehend.

Exploring the historical context of astronomy in Java, Serat Widya Pradhana reveals that Sunan Giri II, one of the Walisongo, introduced the Javanese Islamic calendar system, a fusion of Javanese and Hijri calendars. However, the historical records about the specific method for determining the direction of the qibla during this period could be more precise. Only in the 18th century, during the time of Muhammad Arsyad al-Banjary, did the method for determining the direction of the qibla begin to surface in historical accounts.[20]

---

[18] Suwardi Endraswara, *Mistik Kejawen Sinkritisme Simnolisme Dan Sufisme Dalam Budaya Spiritual Jawa* (Yogyakarta: Narasi, 2003), 1–4.

[19] Endraswara, *Mistik Kejawen Sinkritisme Simnolisme Dan Sufisme Dalam Budaya Spiritual Jawa*.

[20] Jayusman Jayusman, "Sejarah Perkembangan Ilmu Falak Sebuah Ilustrasi Paradoks Perkembangan Sains Dalam Islam," *Al-Marshad* 1, no. 1 (2015): 44–67, https://doi.org/10.30596/jam.v1i1.738.

In the field of religious anthropology, the examination of myths, traditions, and religions involves the exploration of knowledge systems concerning spirituality. These systems encompass beliefs in the supernatural, mystical occurrences, and matters related to current life and the afterlife. Malinowsky defines myth as more than a mere narrative; it is regarded as a genuine account, elevated to a noble and sacred status, serving as an exemplary model.[21]

The Kejawen community's way of life typically revolves around a theosophical foundation[22]. This theosophical inclination gives rise to a constant pursuit of unity with God, fostering a perpetual yearning for divine closeness and an ongoing desire for inner connection. The Javanese consistently emphasises avoiding actions deemed as *ora ilok* (prohibited or inappropriate) and *kuwalat* (subject to adverse consequences), reflecting mystical control.[23]

Hence, it is understandable that the various segments within the Gambiran Pati community might encounter challenges in embracing a novel, rational, and astronomically based approach to determining the qibla direction compared to the "mystical" method employed by Sunan Kalijaga. This resistance stems from a commitment to safeguarding ancestral legacies, particularly given the significant historical value associated with mosques like Baiturrahim in Gambiran Pati and Demak Grand Mosque.[24]

The Qibla Direction of Sunan Kalijaga Mosque between Legalism and Intuism

The polemic of determining the lightning direction or, in the writer's language, the flash direction of a mosque to the correct lightning direction is a

[21] Sardjuningsih, "Islam Mitos Indonesia (Kajian Antropologi Sosiologi)," *Kodifikasia: Jurnal Penelitian Islam* 9, no. 1 (2015): 63–100, https://doi.org/10.21154/kodifikasia.v9i1.796.

[22] Theosophy is a teaching that teaches things related to God and is based on inner deepening. see Endraswara, *Mistik Kejawen Sinkritisme Simnolisme Dan Sufisme Dalam Budaya Spiritual Jawa*, 4–7.

[23] Endraswara, 5.

[24] Wali means a person who is always close and obedient to Allah SWT without being accompanied by immorality, is awake (mahfuzh) and has all his affairs controlled by Him. However, saints differ from prophets in their degrees. The Prophet possessed the nature of ma'sum in, which Allah gave him the strength to reject and prevent disobedience. Whereas the wali has the potential to commit immorality and obedience, Allah protects him from corruption by giving him nur in his heart, which can guide him and turn him away from immoral acts. See In'amuzzahidin Mashudi, *Wali Sufi Gila* (Jogjakarta: Ar Ruzz Press, 2003), 67–69.

necessity (common) for Muslims, considering facing the qibla direction is one of the valid requirements for prayer that must be fulfilled except in an emergency. The urgency of the qibla direction in the prayer becomes an essential study for Muslims. Then came various works of fiqh scholars discussing the direction of the qibla. The scholars agree that facing the qibla is a condition for the validity of prayer.[25]

The examination of astronomy is regarded as the most accurate and contemporary approach to determining the orientation of mosques or prayer rooms, encompassing straightforward and intricate methods. Nevertheless, it is undeniable that mosques carry significant historical and sacred significance, particularly when the qibla direction is determined through the intuitive religious approach with mystical undertones by a wali. The Baiturrahim Mosque in Gambiran Pati and the Grand Mosque of Demak hold historical importance and possess a "sacred" essence. As highlighted earlier, these mosques' qibla directions are measured by Sunan Kalijaga.

As the human mindset has evolved in tandem with scientific and technological advancements, the qibla direction of both the Baiturrahim Mosque and the Grand Mosque of Demak has deviated from the expected orientation, as assessed by a rational, mathematical, astronomical approach, specifically astronomy. However, scholars argue that this deviation falls within acceptable limits of bias, as previously explained by the author.

In this context, the community continues to prefer and adhere to the Sunan Kalijaga version of the qibla direction, characterised by mystical and mythical elements, as a matter of faith and worship. This choice persists despite the availability of an astronomical version based on scientific principles. As discussed earlier, several factors underpin the community's decision to maintain the Sunan Kalijaga version of the qibla direction.

The author asserts that the essence of confidence in the heart, leading to a devout and focused state known as "khusyu'," is crucial in worship. This perspective aligns with the Islamic jurisprudential principle *"al yaqiinu la yuzaalu bi as syaak"* (certainty is not removed by doubt). The community's belief is more inclined towards the Sunan Kalijaga version of the qibla direction, and any doubt tends to be associated with the astronomical version. This inclination is rooted

[25] Ibnu Rusyd, "Al-Faqih Abul Al Walid Muhammad Bin Ahmadbin Muhammad, Bidayatu Al- Mujtahid Wa Nihayatu Al-Muqtasyid," in *Analisa Fiqih Para Mujtahid Juz.II*, trans. Imam Ghazali Said (Beirut: Dar Al-Kutub Al-Ilmiyah, 2002), 262.

in a commitment to preserving ancestral heritage and a deep reverence for the figure of Sunan Kalijaga.

In examining the philosophy of science, the emphasis on ethos is directed towards urging the Gambiran Pati community to contemplate which version of the qibla direction they deem correct and the rationale guiding their choice. The potential alteration of the qibla direction through the application of astronomical principles is acknowledged, with a recognition that such a change might lead to societal divisions concerning Islamic unity.

Conclusion

Ensuring the accurate alignment with the qibla is an essential requirement for prayer. Therefore, ensuring that we are confidently oriented towards the Ka'bah and utilising available science and technology is critical. When reassessing the qibla direction of existing mosques, consideration must be given to the socio-cultural context surrounding each mosque. Refraining from any verification process that may jeopardise the unity among the people or instill doubts in their worship is crucial. Astronomy guides achieving a direction that approximates the truth, facilitated by advancements in science and technology. The mythology associated with specific structures, such as the Baiturrahim Mosque in Gambiran Pati and Demak Grand Mosque, has been ingrained over generations due to a steadfast belief and commitment to these structures. These structures hold unique roles and functions that should not be altered without a sound and justifiable basis.

Acknowledgement

We thank the research team, research assistants, participants, and especially the editors and anonymous reviewers of Teosofia.

Funding

This research did not get any financial support.

Author Contributions

All authors contributed equally to this research and agreed to the published version of the article.

Bibliography

Akbar, Reza, and Riza Afrian Mustaqim. "Theoretical Study of the Use of the Polaris Star As a Reference for the North Point in Determining the Qibla Direction." *Jurnal Ilmiah Islam Futura* 22, no. 1 (February 11, 2022): 16. https://doi.org/10.22373/jiif.v22i1.9411.

Al-Baghdadi, Abi Hasan Ahmad bin Muhamad bin Ahmad bin Ja'far al-Quduri al-Hanafi. *Mukhtasar Al-Quduri Fi Al-Fiqh Al-Hanafi*. Beirut: Dar al-Kutub al-Ilmiyah, 1997.

Al-Maqdisi, Muhammad Abdullah. *'Umdat Al-Fiqh Fi Al-Mazhab Al-Hanbali*. Beirut: Maktabah al-'Adriyyah, 2003.

Endraswara, Suwardi. *Mistik Kejawen Sinkritisme Simnolisme Dan Sufisme Dalam Budaya Spiritual Jawa*. Yogyakarta: Narasi, 2003.

Fadholi. "Wawancara Dengan Fadholi (Ta'mir Masjid Baiturrahim Gambiran Pati." Pati, 2017.

Hambali, Slamet. *Ilmu Falak I: Penentuan Awal Waktu Shalat Dan Arah Kiblat Seluruh Dunia*. Semarang: Program Pascasarjana IAIN Walisongo Semarang, 2011.

Hamzah, Amal. "Wawancara Dengan Amal Hamzah Di Kediamannya," 2017.

Hidayat, Taufik, Nurmala K Pandjaitan, and Arya Hadi Dharmawan. "Kontestasi Sains Dengan Pengetahuan Lokal Petani Dalam Pengelolaan Lahan Rawa Pasang Surut." *Sodality: Jurnal Sosiologi Pedesaan* 4, no. 1 (2010): 1–16. https://doi.org/10.22500/sodality.v4i1.5855.

İlçi, Veli, İbrahim Murat Ozulu, and Reha Metin Alkan. "Investigation on the Accuracy of Existing Qibla Directions of the Mosques from Different Periods: A Case Study in Çorum City, Turkey." *Tehnicki Vjesnik - Technical Gazette* 25, no. 6 (December 2018): 1642–49.

https://doi.org/10.17559/TV-20170226111205.

Izzuddin, Ahmad. *Ilmu Falak Praktis: Metode Hisab-Rukyat Praktis Dan Solusi Permasalahannya*. Semarang: Pustaka Rizki Putra, 2012.

Jaelani, Ahmad, Anisah Budiwati, Encep Abdul Rozak, Faqih Baidhowi, Hasna Tuddar Putri, Mahya Laila, Muhammad Manan Ma'nawi, et al. *Hisab Rukyat Menghadap Kiblat*. Semarang: Pustaka Rizki Putra, 2012.

Jayusman, Jayusman. "Sejarah Perkembangan Ilmu Falak Sebuah Ilustrasi Paradoks Perkembangan Sains Dalam Islam." *Al-Marshad* 1, no. 1 (2015): 44–67. https://doi.org/10.30596/jam.v1i1.738.

Kementerian Agama R.I. Badan Litbang dan Diklat. *Dinamika Sistem Kepercayaan Lokal Di Indonesia*. Jakarta: Puslitbang RI, 2012.

Mashudi, In'amuzzahidin. *Wali Sufi Gila*. Jogjakarta: Ar Ruzz Press, 2003.

Purnama, Heri. *Ilmu Alamiah Dasar*. Jakarta: Rineka Cipta, 2010.

Purwadi. *Babad Demak : Sejarah Perkembangan Islam Di Tanah Jawa*. Jogjakarta: Tunas Harapan, 2005.

Rusyd, Ibnu. "Al-Faqih Abul Al Walid Muhammad Bin Ahmadbin Muhammad, Bidayatu Al- Mujtahid Wa Nihayatu Al-Muqtasyid." In *Analisa Fiqih Para Mujtahid Juz.II*, translated by Imam Ghazali Said, 262. Beirut: Dar Al-Kutub Al-Ilmiyah, 2002.

Sardjuningsih. "Islam Mitos Indonesia (Kajian Antropologi Sosiologi)." *Kodifikasia: Jurnal Penelitian Islam* 9, no. 1 (2015): 63–100. https://doi.org/10.21154/kodifikasia.v9i1.796.

Utami, Tri Pangestu, and Muhammad Awaludin. "Komparasi Arah Kiblat." *AL - AFAQ : Jurnal Ilmu Falak Dan Astronomi* 3, no.

1 (July 19, 2021): 77–88. https://doi.org/10.20414/afaq.v3i1.3571.