

## Analysis of Qicblat Direction at Jami Al Iman Mosque Sunan Geseng Loano Purworejo

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### ABSTRACT

*This research is motivated by the questions from the community around the mosque about the Qibla direction's accuracy and the early history of purchasing the Qibla direction. This study examines the historical and astronomical aspects so that the community can accept the calculation of the Qibla direction. Does this research focus on how before shopping towards the Qibla of the Jami' Al-Iman Sunan Geseng Loano Mosque? How accurate? This empirical research uses historical and astronomical or astronomical approaches. The research subjects were mosque takmir and community leaders in Loano Purworejo. Data were collected through observation, interviews, and documentation and analyzed through astronomy and normative. The results of this study indicate that the Jami' Al-Iman Sunan Geseng Loano Mosque was founded by Sunan Geseng in 1443 AD, using the supernatural through the media of the priest's hole to determine the Qibla direction.*

**Keywords:** Astronomy; Fiqh; Historical Mosque; Qibla Direction.

**How to Cite:** Muhajir, M., Yahya, I., & Suleman, F. (2022). Analysis of Qicblat Direction at Jami Al Iman Mosque Sunan Geseng Loano Purworejo. *Jurnal Ilmiah Al-Syir'ah*, 20(2), 251–262.

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## **INTRODUCTION**

According to sharia law, facing towards the Qibla is defined as the whole body or a person's body facing towards the Kaaba in Mecca, which is the center of support for Muslims to complete certain acts of worship, such as prayer. Facing the Qibla is a legal requirement for Muslims who want to perform fardhu or other sunnah prayers. Even scholars agree that facing the Qibla is a condition for the validity of prayer (Abdurrahman, 2006). It determined since the time of the Prophet Muhammad. In carrying out prayer services, one must face the Qibla direction. This is a condition for valid prayer, meaning that the prayer performed is invalid without facing the Qibla direction (Asy-Syarbainī, 2009).

Some scholars argue that facing the Qibla means directing the body right towards the Kaaba, which Allah SWT determines as the Qibla of Muslims. Even the scholars of ijma 'about facing the Qibla as a condition of prayer worship. Therefore it is essential to carry out measurements of the Qibla direction to know the Qibla direction using methods tested for accuracy. In his book Muhammad Ibn Ahmad al Ansari, he explains that a person who leaves the Qibla direction is in prayer. If he is in a state of knowing (*'alim*) for this action, then his prayer is invalid (*la namaz*), and he must repeat his prayer facing the direction of Qiblah (Qurthubi, 1996).

Therefore facing the Qiblah is an obligation for Muslims who will perform the prayer. Apart from differences of opinion among scholars regarding the territorial direction of Qibla, whether the Qibla referred to by the phrase, Masjidil Haram, is only the Kaaba, the entire area of the Grand Mosque, or the entire land of Mecca.

The location of Purworejo is to the east of the city of Makah, so it is common for people to think that the Qibla direction is west. Some people, when building mosques, no longer measure Qibla direction with equipment. They immediately set west in the Qibla direction. Purworejo is a district that has left so much history because of its strategic location since ancient times. So many historical heritages are in Purworejo Regency. One of the historical remains in Purworejo is the mosque. There are many historical mosques in Purworejo Regency, including the Jami' Al-Iman Sunan Geseng Mosque, located in Loano, Purworejo Regency, which became the research site for researchers.

It needs to be a severe concern for mosque administrators who move to re-measure existing mosques as a responsibility. So that the prayers carried out by Muslims are carried out correctly so that the implementation of prayers by the community or Muslims, especially in Purworejo Regency, becomes better and afdal because it faces the Qibla direction. It is what prompted the researcher to examine this study/problem.

## **METHODS**

This research is qualitative field research, with the type of case research, namely about the accuracy of the Qibla direction at the Jami' Al-Iman Sunan Geseng Mosque in Purworejo Regency. The research approach used is historical and astronomical approaches. The historical approach is to find out in the past in determining the Qibla direction using what kind of tools. A scientific used to facilitate this research related to determining the Qibla direction and the accuracy level in astronomy or astronomy aspects.

## **RESULTS AND DISCUSSION**

Etymologically, the word Qibla comes from the Arabic word Qiblah, which is the infinitive form of *قبّل- يقبل- قبلة* *al'iqbal*, which means facing (Munawir, 2011). The meaning of direction is the closest distance from a place to Mecca (Tanjung, 2017).

In terms of the Qibla direction, experts provide definitions. Among others, Dahlan & others (1996) defines it as the building of the Kaaba or the direction that Muslims aim for in carrying out some of their worship. Nasution & others (1992) interprets it as the direction to face at prayer times. The Ministry of Religion of the Republic of Indonesia interprets it as a specific direction for Muslims to direct their faces in performing prayers (Kementerian Agama RI, 2012). Hambali (2010) defines the direction of the Qibla, namely the direction towards the Kaaba (Makkah) via the nearest route, where every Muslim must face that direction when performing prayers. Khazin (2008) interprets it as the direction or shortest distance along the big circle that passes to the Kaaba (Makkah) with the city in question. Understanding the Qibla, it can conclude that the Qibla is the direction toward the Kaaba when praying.

"All the scholars of the madhhab agree that the Kaaba is the Qibla for those close and can see it. But they have different opinions about the Qibla for people who are far away and cannot see it" (Jawad Mugniyah, 2011). The madzhab scholars have agreed that people who see the Kaaba building during prayer are required for him to face the physical Kaaba. As for people far from the Kaaba, scholars differ on this matter.

The majority of Hanafi madzhab scholars think that people who do not see the Kaaba directly must face the Kaaba (*Jihatul Kaaba*). Face the walls of the mihrab (place of prayer), built with signs indicating the direction of the Kaaba, not facing the Kaaba building ('ainul Ka'bah) (Jaelani et al., 2012). The Hanafiyah scholars argue that the Qibla is the direction of the Kaaba, and it is obligatory to face something that can do. While facing the Kaaba Building is challenging to do. So it is not obligatory to face the Kaaba Building.

'Abidin (2003), in his book *Raddul Mukhtar*, explained that "what is made a requirement in prayer is facing the Qibla not looking for the Qibla direction, looking for the Qibla direction is an additional requirement for those who can or

can to do so. People in the city of Mecca facing the Qibla for him are facing the Kaaba, while people who do not see the Kaaba are facing the Kaaba. The direction of the Ka'ba is the side that when someone faces it, he or she faces the Ka'ba for sure or approximately. In his book *Al-Muwatta*, Anas (1994) explains the Qibla based on the Hadith of the Prophet Muhammad Saw.

وحد ثني عن ملك، عن يحيى بن سعيد، عن سعيد بن المسيب، أنه قال: صلى رسول الله ص.م بعد أن قدم المدينة، سنة عشر شهرا، نحو بيت المقدس. ثم حولت القبلة قبل بدر بشهرين

Meaning: "Said Yahya from Malik, from Yahya bin Sa'id, from Sa'id bin Musayyab said that: Rasulullah SAW prayed facing Baitul Maqdis for 16 months after coming to Medina. Then the Qibla was moved (to the Kaaba) two months before the Battle of Badr.

"Based on the hadith above, before arriving in Medina during his migration, his prayers always went to the Baitul Maqdis (Masjidil Aqsa), which is in Jerusalem, Palestine, for 16 months. Then after he arrived in the city of Medina, the Qibla moved from the Aqsa Mosque to the Kaaba in Makkah (Anas, 1994).

Ibn Rushd revealed that if facing the Kaaba building was an obligation, then of course it would be very difficult. Allah SWT says:"

وَمَا جَعَلَ عَلَيْكُمْ فِي الدِّينِ مِنْ حَرَجٍ

Meaning: He has never made our religion an obstacle. (Q.S. Al-Hajj:78)"

"Based on the excerpt of the verse above, Allah SWT will not make it difficult for his servant to worship. According to Ibn Rushd, facing the Kaaba building in areas far from Mecca is very burdensome because it requires specific *ijtihad* and research. Orders to perform *ijtihad* in seeking the direction of the Kaaba building (Mujab, 2016).

In the Book of *al-jami' li ahkam al-Qur'an*, Al-Qurthubi (2006) interprets the words of Allah SWT:"

وَحَيْثُ مَا كُنْتُمْ فَوَلُّوا وُجُوهَكُمْ شَطْرَهُ

Meaning: "And wherever you are, then turn your face toward it" (Q.S. Al-Baqarah : 150)"

"He explained that the scholars differed on whether it was obligatory for people who could not see the Kaaba building directly to face the building (*Ain al-Ka'bah*) or obligated towards the Kaaba (*Jihad Al-Kaaba*). Some state the first choice (Al-Qurthubi, 2006).

Meanwhile, other scholars say that the Qibla for that person is the direction of the Kaaba (*jihad Al-Kaaba*). This opinion sees as closest to the truth based on three reasons, namely; *first*, facing towards the Kaaba is a *taklif* that was

implemented. *Second*, this is the implementation of the command contained in the Koran: "... then turn your face towards the al-haram mosque. And wherever you are..." (i.e., in the eastern and western hemispheres), "... then turn your face towards it". Third, the scholars argue for the legitimacy of long rows in congregational prayers, which can exceed several times the length of the Kaaba building (Mujab, 2016).

Based on the explanation above, it can conclude that the majority of the Maliki Madzhab scholars believe that for those who cannot see the Kaaba building, it is sufficient for them to face towards the Kaaba. Imam Syafi'i explained that there are two ways to face the Qibla. People can see the Baitullah, those who live in Mecca, a house in Makkah, on a hill or a mountain. His prayer is not valid until he is facing the Baitullah correctly. He can point directly to the Baitullah because he can see it (As-Syafi'i, n.d.).

"Based on the opinion of Imam Shafi'i, it can be stated that people who are in the Mecca area and can also see the Ka'ba must face the direction of the Baitullah. So if he faces in a direction other than the Baitullah, even though he can see it, his worship, especially his prayer, is not valid. Then the second way, according to Imam Syafi'i, is for people outside Mecca. They take ijtiḥad to determine the direction of Qibla; then, the ijtiḥad is different. One of them may not follow his friend's ijtiḥad. Even though he sees his friend is more brilliant in ijtiḥad than him, his friend gives him directions to a sign that he thought he had mistaken with his first ijtiḥad. So he has to return to the last opinion he has to follow, namely someone else's ijtiḥad (As-Syafi'i, n.d.).

Scholars of the Hanbali Madzhab think that what is obligatory is facing the Kaaba (*Jihatul Kaaba*), not facing the Kaaba Building (*'Ainul Kaaba*). People who can see the Kaaba directly must face the Kaaba building (Jaelani et al., 2012). Al-Maqdisi (1997), in the book *al-Mughni*, stated that if a person prays by looking directly at the Kaaba, his Qibla is facing the Kaaba building. He divided four conditions for people facing the Qibla: "*First*, very sure people, namely people who directly see the building of the Kaaba or are among the residents of the city of Mecca. So the Qibla is facing the Kaaba building with confidence. Based on the hadith of the Prophet narrated by Usamamah:"

ان النبي صلى الله عليه وسلم دخل الكعبة ثم خرج فصلى ركعتين ثم قال هذه القبلة

Meaning: Verily the Prophet' saw. Enter the Kaaba, come out, and pray two rak'ahs (by facing the Kaaba). After that, he said: this is the Qibla (building of the Kaaba)."

"*Second*, people who know the Qibla direction through news from other people. He is in 'Makkah' but is not 'one of the' residents of Mecca, and he 'cannot' see the Kaaba 'directly.' He faces the Qiblah with the belief that the person who provides information about the Kaaba sees the Kaaba directly. Likewise, if someone

is in a city or village whose view cannot reach the Kaaba building, then he is obliged to face toward the mihrab or Qibla that made.

*Third*, people who do not know the Kaaba, but have signs/knowledge to know the Qibla direction, then he is obliged to make ijihad to know the Qibla direction. Fourth, people who are unable/unable to know' the Kaaba because they are Blind or' has no' sign/knowledge about it. So he must have obedience to the mujtahid. For 'people who' are in the condition of 'points three' and four, and for 'people who' live far away from Mecca, it is to find out the direction of the Kaaba' not about the building."

### **Qibla Direction Determination Method or the Tool**

*First*, the '*Istiwa*' stick is a 'stick' that is 'plugged' perpendicular to the 'flat plane' and placed 'in an open place so 'the sun can' shine on it freely. In ancient times, this stick knows as "gnomon" (Kamalludin, 2019). *Second*, the Astrolabe/*Rubu' Mujayyab* is a 'tool' to 'calculate' geometric functions, which are 'very' useful for 'projecting' a 'circulation' of celestial bodies on a vertical 'circle.' This tool is made of wood or plank in the shape of a quarter circle, one side plastered with paper on which a quarter circle is drawn, and degree lines and other lines are attached (Ahmad, 2012). *Third*, the 'Magnetic Compass' is a navigation tool in the form of a magnetic pointing arrow that adjusts itself to the earth's magnetic field to show the cardinal directions. In principle, the compass works based on a magnetic field. The compass can show the position of the earth's magnetic poles. Because of its magnetic nature, the needle will always point magnetic north-south (Choiriyah, 2017).

*Fourth*, use the Qibla method with sunlight that is precisely or almost exactly at the zenith point of the Kaaba. In other words, the sun is culminating and has a height of 90° seen from the Kaaba. Every year this situation occurs twice, namely when the sun is heading north in May and when the sun is heading south in July. If this situation occurs, the shadow of every upright object in the hemisphere experiencing noon will face the Qibla (Mujab, 2016).

This situation is called the *Rashd al-Qiblah* event. *Rashd al-qiblah* is the determination of the time in which the shadow of an object exposed to sunlight points to the Qibla direction. As in the holy tower calendar, KH Turaichan is set on May 27 or 28 and July 15 or 16 each year as "*Yaumi Rashdil Qibla*" (Nurmila, 2017).

We should also be able to determine the hour of the *Rashd al-Qiblah* or Qibla direction with the help of sunlight. Please note that the *Rashd al-qiblah* clock changes because it is affected by the sun's declination. This method can be referred to as *As Shams fi Madāri al-Qiblah* (Choiriyah, 2017)."

Qibla direction is determined based on the shadow of a pole or sticks at a particular time. The tools used include *bencet*, *miqyās*, or special sticks. This

method is guided by the position of the sun exactly (strictly) at the zenith of the Kaaba. The position of the sun's latitude can pass through the Kaaba, so the results are more accurate than other methods (Amir, 2020).

According to Slamet Hambali, Rashd Al-qiblah events classify into local Rashd al-qiblah and global Rashd Al-qiblah. Several formulas can calculate local Rashd al-qiblah. The first formula,  $\text{Cotg } A = \text{Sin } LT \times \text{Cotg } AQ$ , is then calculated using the second formula:  $\text{Cos } B = \text{Tan } \text{Dekl} \times \text{Cotg } LT \times \text{Cos } A = + A$ . After that, it converts according to each region's time (Suryadin, 2021)."

While the global Rashd Al-Qiblah occurs twice a year, namely on May 27 (leap year) or May 28 (basithah year) at 11:57 LMT (Local Mean Time) and on July 15 (leap year) ) or July 16 (basitah year) at 12:06 LMT (Local Mean Time). Dates and hours, the value of the sun's declination, is almost the same as the latitude of the Kaaba. Thus, if the Makkah time (LMT) converts to western Indonesian time (WIB), it must be added to January 4 at 21 minutes, equal to 16:18 WIB and 16:27 WIB. Therefore, Muslims can check the Qibla direction every May 27 or 28 at 16:18 WIB because the sun's shadow will be back in the Qibla direction. The same goes for every July 15 or 16 at 16:27 WIB. In several references, this Rasydul Qibla time is used in several days, ranging from 1 day before and one day after that date (Ahmad, 2012).

*Fifth*, the Qibla Azimuth is the angular distance calculated from the north point to the east (clockwise) to the Qibla point (Kaaba). The azimuth north point is 00, the east point is azimuth 900, the south point is azimuth 1800, and the west point is azimuth 2700. *Sixth*, Theodolite is an optical survey instrument that measures angles, and directions mounted on a tripod. Today, Theodolite is considered the most accurate tool among existing methods in determining Qibla direction. With the help of the movement of celestial bodies, namely the sun, theodolites can show angles up to arcseconds. By knowing the sun's position, namely taking into account the sun's azimuth, true north or the azimuth of the Qibla from a place, determine accurately (Ahmad, 2012).

*Seventh*, Mizwala Qibla Finder is a practical tool by Hendro Setyanto, MSi, to determine Qibla direction practically using sunlight. The Mizwala is a modification of the Sundial shape, consisting of a gnomon (stand stick), a dial (circle field) with degrees of angle measurement, and a small compass as a reference point. Determining the Qibla direction with this mizwala is by using sunlight, taking the shadow at the desired time. Then the dial area is rotated for the angle that is in the program. After that, look at the Qibla azimuth angle of the place on the dial and pull it with thread. This line is the Qibla direction (Mustaqim, 2020).

*Eighth*, Qibla Locator, this practical software application can be operated by entering the name of the place or area we want. The software depicts the place as a prayer room, mosque, or house with a yellow line indicating the Qibla direction, so that we can find out whether the Qibla direction of the Mushalla building, mosque, or house is by the actual Qibla direction or not (Duadji & Tresiana, 2022).

*Ninth*, Mawaqit 2001, was made by one of the active researchers in Indonesia's Bokusurtanal (Coordinating and Surveying Agency), Dr. Ing. Khafid. It is no different from other programs in calculating Qibla direction by entering coordinate location data. In addition to Qibla calculations from the north point, this software provides Qibla direction calculations on each date and sunshade time at hourly intervals. *Tenth*, Al Miqat, the operational way of finding the Qibla angle of a place/city is almost the same as other programs, namely by entering the latitude and longitude of the place we want. In Al Miqat, there is a program for determining the five daily prayers by considering the altitude. In addition to the Qibla direction program, there is a schedule of prayer times set at intervals that can be printed directly (Choiriyah, 2017).

### **Qibla Direction Problem in Society**

Several factors are suspected of being the cause of errors in determining the Qibla direction of mosques in the community, including 1) The Qibla direction of the mosque determines as an approximation by referring roughly to the Qibla direction of the existing mosque; 2) In some mosques, the Qibla direction is determined using inaccurate or inaccurate tools, such as a razor blade, a low-accuracy compass, and a compass without checking or correcting the magnetic declination. They were using a compass found on a prayer mat is usually brought as a souvenir from the holy land when carrying out the pilgrimage.

Sometimes in determining the Qibla direction of a mosque or prayer room, it is determined by someone prominent in the community. Suppose it is not sure that the character can determine the Qibla direction correctly and accurately. Before the construction of the Qibla direction of the mosque, it had been measured correctly by experts. However, during the construction phase, there were shifts by the artisans who worked on it without further monitoring—the opinion states that the Qibla direction is west. Even mosques are built with more artistic and aesthetic value in mind than precise calculations and measurements of the Qibla direction. Those factors can potentially cause the Qibla direction of a mosque to be incorrect (Jayusman, 2020).

### **Determination of the Qibla Direction of the Jami' Al-Iman Mosque, Sunan Geseng Loano**

The Jami' Al-Iman Sunan Geseng Loano Mosque was founded in 1443 AD, during the heyday of the Loano Kingdom, which was the center of government for the city of Purworejo during the era of the Pajajaran kingdom to the Mataram kingdom (Muhadi, 2020). Residents believe this mosque is inherited from Sunan Geseng, a disciple of Sunan Kalijaga, who is considered older than the Demak Mosque, which Sunan Kalijaga founded. According to this mosque, the legend was founded by Wali Songo together in one night. The Chronicle of Demak shows that this mosque was founded in 1477 AD.



According to information from parents/elders in Loano, this mosque was on the riverbank, but suddenly no one knew it was already where it is today. The community believed this mosque had been moved from the riverbank to its current location. This was done by Sunan Geseng alone by carrying the pillars of the mosque building so that the Jami' Al-Iman Sunan Geseng Loano Mosque is also known as the Tiban Mosque because it suddenly existed (Erwan, 2020).

The method of determining the Qibla direction during the construction of the Jami' Al-Iman Mosque, Sunan Geseng Loano, according to information passed down from people, was previously carried out by Sunan Geseng. One of the clues is the existence of a hole in the imamate of the mosque, indicating that the determination of the Qibla direction when the mosque was built used supernatural powers, such as the story of Mbah Bolong, a student of Sunan Ampel, who could see the Kaaba from the hole in the mosque's imam. This is also what Sunan Geseng does when determining the Qibla direction. This method was carried out by Sunan Geseng when building the mosque with supernatural powers, namely by looking at the Kaaba from the priest's hole (Muhadi, 2020).

Another statement, according to Erwan (2020), the Secretary of the village of Loano and also a history activist, said: If we look at the phenomena that occur in the Loano community and its surroundings, regarding their perception of the Qibla direction, the general public of Loano and its surroundings consider the Qibla direction to be west, with the usual discussion. When asking other people, "Wis madep ngulon durung Le", (Are you facing west yet son) this means have you performed your prayers facing the Qibla, son. So the determination of the Qibla direction of the Jami' Al-Iman Mosque, Sunan Geseng Loano, is based on the west direction.

Based on Muhadi's statement that as takmir of the Jami' Al-Iman Mosque, Sunan Geseng Loano explained that from information from parents passed down from generation to generation, they said that the Qibla direction at the beginning of the establishment of the mosque's shaf conditions remained as before (Muhadi, 2020).

## **CONCLUSION**

Facing the Qiblah is related to the ritual of worship, namely prayer. The legal basis for ordering to face the Qibla in prayer is the Qur'an, Hadith, and the opinion of the clergy. There are many methods of determining Qibla direction, including Traditional methods consisting of Istiwa's stick, astrolabe/ Rubu' Mujayyab, magnetic compass, and Qibla method with sunlight. The Modern Method consists of Qibla azimuth, Theodolite, Mizwala Qibla Finder, Qibla Locator, Mawaqit 2001, and Al Miqat. The Jami' al-Iman Sunan Geseng Loano Mosque was founded by Sunan Geseng in 1443 AD. The method of determining the Qibla direction during the construction of the Jami' Al-Iman Sunan Geseng Loano Mosque with supernatural powers is by looking at the Kaaba from the priest's hole, and the Qibla direction is still no changes. Based on the view of fiqh, the

determination of the Qibla direction of the Jami' Al-Iman Mosque, Sunan Geseng Loano, is the Qibla for approximately. Meanwhile, according to the view of Astronomy or astronomy, they have not used astronomical calculations, so the Qibla direction is not precise to the Qibla by astronomy.

#### **ACKNOWLEDGMENTS**

The author would like to thank all parties who support and help in this research, especially for the Head of STAI An-Nawawi Purworejo and the entire Loana Village community, Benar District, Purworejo Regency in contributing to research data collection.

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