

NUSANTARA AND MIDDLE EASTERN ASTRONOMY SCHOLARS (NETWORK, GENEALOGY, AND WORKS)

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Abstract: In the social and intellectual history of Nusantara and Middle Eastern astronomy scholars, Mecca and Medina became important centres that produced a network of knowledge and scientific traditions. The chain of the Nusantara and Middle Eastern scholar network was born from the intense interaction of students, scholars, and pilgrims with scholars in Haramain as shown by Nuruddin ar-Raniri, Abdurrauf as-Singkili, Ahmad Khatib Minangkabau, and Muhammad Mukhtar bin 'Atharid. In addition, the Indonesian astronomy network was formed through the scientific travel of several Nusantara falak figures to Egypt, such as Muhammad Thahir Jalaluddin, Ahmad Dahlan Tremas, and Muhammad Hasan Asy'ari. Thus, Nusantara astronomy has a close relationship with the Middle East. In the Nusantara, alums of Haramain who mastered astronomy developed their knowledge by transferring it to students and the community, some through direct preaching in the community, some through exceptional learning in Islamic boarding schools or mosques, and some developed it in the form of writing works. Next, from what these astronomy scholars did, they eventually produced students who also mastered astronomy. These students also then developed their knowledge so that astronomy continued to grow, form networks of genealogies, and create many works.

Keywords: Nusantara, astronomy, network

Introduction

In the socio-intellectual history of Muslims, the sources of Islamic dynamism emerged in the 17th and 18th centuries, forming a network of scholars centred in Mecca and Medina. These two holy cities were pivotal in shaping scientific traditions and knowledge networks. History records that the main chain of the Nusantara-Indonesia scholar network began with Sheikh Nuruddin ar-Raniri (d. 1658) and Sheikh Abd ar-Rauf as-Singkili (d. 1693). Students who later became scholars resided in Haramain for varying periods—some for a few years, some longer, and some returning to Nusantara immediately after performing the Hajj. These patterns shaped the genealogy and network of scholars, particularly the distinctive Nusantara astronomy network.

The intense interactions of figures (students, scholars, and pilgrims) in Haramain with individuals outside Nusantara provided Nusantara scholars with broad insights and experiences. Their engagement in Haramain's study circles (halaqah) significantly shaped their understanding. Some of these scholars, mainly those proficient in falak, further developed their expertise in Haramain, such as Sheikh Ahmad Khatib Minangkabau (d. 1334/1915) and Sheikh Muhammad bin Umar an-Nawawi Banten (d. 1314/1897). Their halaqah attracted numerous students from Nusantara. Over time, these students, who became scholars themselves, contributed through teaching, preaching, and writing. It was shown by Shaykh Muhammad Thahir Jalaluddin (d. 1376/1956) and Dean Sayekh Muhammad

Mukhtar bin 'Atharid Bogor (d. 1349/1930), both of whom were students of Shaykh Ahmad Khatib Minangkabau. Next, the pattern of the Nusantara's Falak scientific network can also be seen from the responses, correspondence, and questions from figures and communities in the Nusantara scholars in Haramain.

In addition, the Falak Nusantara network is also seen through the scientific activities of several figures outside Haramain. Shaykh Muhammad Thahir Jalaluddin (d. 1376/1956), for example, studied and settled in Egypt for some time, and there, he studied the Falak text entitled "al-Mathla' as-Sa'id" by Shaykh Husayn Zaid of Egypt. In addition, Shaykh Ahmad Dahlan Tremas (d. 1329/1911) and Shaykh Muhammad Hasan Ash'ari are also recorded as having studied in Egypt. The insights and experiences of these figures who have lived and studied in Egypt and specifically pursued the Falak is another essential factor in the astronomy development in the Nusantara. Thus, it appears that the science of Nusantara Falak has contact with the intense Middle Eastern world.

The following pattern is that these scholars after they return to their homeland, develop their knowledge by transferring it to students and the community. Some go through da'wah directly in the community, some go through exceptional learning at a pesantren or mosque, and some develop in the form of writing works. Next, from what these Falak scholars did, in the end, they gave birth to students who also mastered Falak science. These students also continued to develop this knowledge where they were, so Falak science continued to grow in the Nusantara.

Literature Review

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Method

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Results and Discussion

1. Network and Pedigree

▪ Zaringan Shaikh Nooruddin R-Raniri (W. 1068/1658)

Ar-Raniri (Nuruddin bin Ali bin Hasanji al-Hamid as-Syafi'i al-Ash'ari al-Aydarusy) originated from 'Ranir', a city on the Gujarat Coast. His father was an immigrant Hadrami who had a tradition of moving around by settling in port areas. In Aceh he once served as Shaikul Islam in the Sultanate of Aceh. Ar-Raniri's intellectual contact with the Nusantara began with his uncle, Muhammad Jamil bin Hasan Muhammad al-Humaydi, who came from Gujarat to India to teach fiqh, fiqh proposals, ethics, logic, and rhetoric. His most important teacher was Abu Hafs Umar bin Abdullah al-Hadhrami (d. 1066/1656), who was instrumental in connecting him to the world of the Rifa'iyah Order. Ar-Raniri received his early education in Ranir and Hadramaut. Next, he left for Haramain and established relationships with students and pilgrims from the Nusantara who were there before returning to Gujarat. Ar-Raniri was very prolific. He wrote at least 29 works, one of which was titled "*ash-Shirath al-Mustaqim*," which he had written before settling in Aceh. When examined, Ar-Raniri's works are more polemical and apologetic.¹

The role and contribution of Ar-Raniri in the falak field is through his work entitled "*Kitab Bad' Khalq as-Samawat wa al-Ardh*", which is a manuscript that discusses the universe from the perspective of Sufism-eschatology. This book is widely circulated in Makkah and Egypt and has been published in Southeast Asia. This book is unique and special, and it is not a book that was studied and studied by students at that time. The edge of this manuscript is a book entitled "*Hidayah al-Mukhtar*", which discusses the virtues of learning.²

In the context of the genealogy and falak network in the Nusantara, Ar-Raniri's position can be seen in the following perspectives: **first**, Ar-Raniri's scholarship, which covers various fields with his works shows his essential position and influence in the development of Islam in the Nusantara. Moreover, Ar-Raniri has an analysis in the Falak field, which is precisely the study of the universe from a surprise-eschatological perspective, which practically places Ar-Raniri in the falak transmission in the Nusantara.

Second, Ar-Raniri's extensive scientific network, which is shown by his rihlah and long travels, places Ar-Raniri in the centre of Islamic studies and the Falak development in the Nusantara. Rihlah and travelling from one region to another using sea transportation emphasise the need to understand the concept of time, direction, and position related to prayer times and qibla directions. It means that practically, Ar-Raniri has practised falak in all his rihlah and wanderings. Thus, it is strongly suspected that he has understood the basic Falak concepts.

▪ Shaykh Abdurrauf as-Singkili Network (d. 1105/1693)

Shaykh Abdurrauf as-Singkili is also known as Teungku Syiah Kuala.³ His initial education was obtained from his home village, Sinkil (now Singkel), mainly from his father, Shaykh Ali, who founded a madrasah in the Sultanate of Aceh. Next, his knowledge was obtained through his scientific rihlah in Arabia around 1052/1642, where he studied and lived in Arabia (Middle East) for 19 years. According to Azra, there are at

¹ Abuddin Nata, *Sejarah Sosial Intelektual Islam dan Institusi Pendidikannya* (Jakarta: PT. Raja Grafindo Persada, cet. I, 2012 M), h. 235.

² Syaikh Nuruddin ar-Raniri, *Kitab Bad' Khalq as-Samawat wa al-Ardh*" (Malaysia: Khazanah Fathaniyah, 1439 H/2018 M).

³ Because he established an education center near an estuary (river) known as 'Kuala'.

least 19 As-Singkili teachers from whom he gained various knowledge. He also has connections with 27 scholars who show the breadth of his scientific network.⁴ His scientific trip to Arabia started in Doha, Yemen, Jeddah, Makkah, and Medina. He has also studied in several regions in Yemen, such as Aden, Zabid, Mukha, Tayy, Bait al-Faqih, and Maza'. The disciplines he is engaged in are Arabic, reading the Qur'an, hadith, Falak, sharia, and Sufism. It is recorded that As-Singkili wrote around 22 works. It appears that As-Singkili has extensive experience and insight, as shown by the large number of teachers and students. Through his extended travels, he mastered many languages, such as Arabic, Urdu, Persian, and Malay.

The As-Singkili network emerged in Haramain, and he was once given the mandate to teach his knowledge in Makkah and Medinah. As-Singkili is a figure who has succeeded in connecting the international network of scholars with regional scholars, namely with the many students who studied with him, especially in the Malay-Nusantara realm.⁵ One of his popular works is *"Mir'ah ath-Thullāb fī Tasyil Ma'rifah al-Ahkām asy-Syar'iyyah li al-Mālik al-Wahhāb"* which contains a discussion of worship, muamalah, fiqh, politics, social, economic, and religious issues of Muslims.⁶

His insights in the Falak field are shown by a treatise entitled *"Risālah fī at-Taqwīm"*. This manuscript is an important and latest discovery that definitively affirms As-Singkili's expertise in falak and its position as one of the centres of study and network in the Nusantara. The text *"Risālah fī at-Taqwīm"* discusses the calendar (calendar). The substance of the discussion is elementary, namely the basics of knowing the day, month, and year in various calendar variants (calendar). Initially, This treatise was a light note of As-Singkili intended for his students or a limited circle. In the closing part (colophon), there is no critical information related to the manuscript or the author.⁷ Therefore, once again, this work affirms As-Singkili's position as one of the astrologers in the Nusantara.

As for As-Singkili's ability in Falak, it can be traced from several analyses, among which it is suspected that As-Singkili studied and or gained insight into Falak when he travelled from and to various regions, especially in Haramain (Mecca and Medina). Among the primary teachers of Shaykh Abdurrauf as-Singkili were Al-Qusyasyi and Al-Kurani (Ibrahim bin Hasan al-Kurani [d. 1101 H]). Among them, Al-Kurani studied intellectual science. Al-Kurani himself has a work entitled *"al-Thariqh Ila Ma'rifah Huruf as-Sanah min al-Hijrah asy-Syarifah"*.⁸ Thus, it can be assumed that As-Singkili also learned falak from his teacher.

▪ **Shaykh Ahmad Dahlan Tremas Network (d. 1329/1911)**

Shaykh Ahmad Dahlan Tremas has studied in Haramain and Egypt. Shaykh Ahmad Dahlan Tremas' primary teacher was his father and also his sibling while in Makkah, namely Shaykh Mahfudz Tremas (d. 1338/1920). Shaykh Ahmad Dahlan Tremas wrote at least

⁴ Azyumardi Azra, *Jaringan Ulama Timur Tengah dan Kepulauan Nusantara Abad XVII & XVIII* (Jakarta: Prenada Media, cet. II, 2005), h. 232.

⁵ Azyumardi Azra, *Global and Local Network of Islam Nusantara* (Bandung: Mizan, cet. I, 1423/2002), p. 107.

⁶ Azyumardi Azra, *Jaringan Ulama Timur Tengah*, h. 245.

⁷ See: Arwin Juli Rakhmadi Butar-Butar, *Ilmu Falak dalam Syaikh Abdur Rauf Singkil (w. 1105 H/1693 M) Kajian atas Naskah "Risalah fī at-Taqwīm"* (Yogyakarta: Bildung, cet. I, 2020 M), h. 33.

⁸ Collection of the Aceh PEDIR Museum (MS. 0194 b). Lihat: Arwin Juli Rakhmadi Butar-Butar, *et.al., Katalog Naskah Astronomi, Matematika, Astrologi Koleksi Museum PEDIR Aceh* (Yogyakarta: Bildung, cet. I, 2022 M).

three falak works, and these three works influenced and referenced many students and astrological figures in his time and afterwards. His work entitled "*Bulūgh al-Wathar*" discusses the calculation of lunar and solar eclipses with the *haqiqi tahqiqi system*, written in conjunction with the book "*Muntahā Natā'ij al-Aqwāl*" by his colleague, Shaykh Muhammad Hasan Asy'ari Bawean. In its construction and substance, this book refers to the book "*al-Mathla' as-Sa'īd*" by Shaykh Husayn Zaid of Egypt.

In Egypt, Shaykh Ahmad Dahlan Tremas met two astrological figures from the Nusantara, namely Shaykh Muhammad Jamil Djambek (d. 1366/1947) and Shaykh Muhammad Thahir Jalaluddin (d. 1376/1956). With these two figures, he specifically studied and studied the book "*al-Mathla' as-Sa'īd*" by Shaykh Husayn Zaid of Egypt.⁹ After returning to his homeland, he returned to study with Shaykh Sholeh Darat. He even married the teacher's daughter, Raden Ayu Siti Zahra and gave birth to two sons, namely Rahmat and Ahmad al-Hadi (d. 1976 AD). Shaykh Ahmad Dahlan Tremas also studied Falak from Shaykh Abdurahman bin Ahmad al-Mishr (d. 1847 AD). Furthermore, Shaykh Ahmad Dahlan Tremas taught his teacher's book in the Tremas area (Pacitan).

His work "*Natījah al-Miqāt*" discusses the use of rubu mujayyab. Specifically, this work represents the thoughts of a number of his teachers, especially Shaykh Husayn Zaid of Egypt, Shaykh Abdurrahman bin Ahmad al-Misri, Shaykh Muhammad bin Yusuf al-Makki, and Shaykh Sholeh Darat. In 1930 AD, this book was lectured by Shaykh Ihsan Jampes Kediri (d. 1371/1952) with the title "*Tashrīh al-'Ibārāt 'alā Natījah al-Miqāt fī al-'Amal bi ar-Rub' al-Mujayyab*".

His work "*Tadzkirah al-Ikhwan fī Ba'dh at-Tawarikh wa al-A'mal al-Falakiyyah*" contains ijtimak and eclipse calculations based on the calculation of the city of Semarang using the *haqiqi taqribi system*. A number of astronomical figures refer to this book, including KH. Abdul Jalil Hamid Kudus (d. 1974 AD), in his work "*Fath ar-Ra'uf al-Mannān li 'Amal al-Kusūf bi Zaij ad-Dakhlān*", then KH. Muhammad Wardan Diponingrat (d. 1411/1991) with his work "Hisab Urfi dan Haqiqi", which initiated the birth of hisab hakiki wujudul hilal Muhammadiyah, and Shaykh Yunus Abdullah Kediri with his work "*Risālah al-Qamarain*". After Shaykh Sholeh Darat died (December 18, 1903 AD), the Darat Islamic boarding school was taken care of and continued by Shaykh Ahmad Dahlan Tremas for approximately 8 years. In this boarding school, he also taught falak to the students by using three Falak works that he had written.¹⁰

The other students of Shaykh Ahmad Dahlan Tremas who have studied Falak, include Ahmad Dahlan, who is the founder of the Muhammadiyah organisation. Another of his students was Shaykh Abu Bakar Kediri, who often referred to his two teachers as "*shaykhani*" (two teachers), meaning Shaykh Sholeh Darat and Shaykh Ahmad Dahlan Tremas. Sociologically, the works of Shaykh Ahmad Dahlan Tremas, Shaykh Hasan Asy'ari Bawean, and Shaykh Sholeh Darat influenced the Falak development in the Nusantara and subsequently opened the dynamics of Falak in Islamic boarding schools. The works they wrote, especially Shaykh Ahmad Dahlan Tremas, were read and studied by subsequent generations.

⁹ Melda Rahmaliatul Aulia, *Studi Analisis Metode Hisab Awal Bulan Kamariah Kitab Bulugh al-Wathar fi 'Amal al-Qamar* (Skripsi, UIN Walisongo Semarang, 2021 M), h. 44.

¹⁰ Melda Rahmaliatul Aulia, *Studi Analisis Metode Hisab Awal Bulan Kamariah*, h. 46.

▪ **Sayyid Uthman's Network (d. 1331/1913)**

His full name is Al-Habib Sayyid Usman bin Abdullah bin Aqil bin Yahya al-'Alawy al-Husainy. Born in Pekojan, Batavia, in 1238/1882. His father (Abdullah bin Aqil) was a Hadrami, born in Makkah. At the same time, his mother was named Aminah, the daughter of Shaykh Abdurrahman bin Ahmad al-Mishri (d. 1847 AD), a philosopher who became one of Sayyid Uthman's teachers. Sayyid Usman was the mufti of Betawi (Batavia), which the Dutch inaugurated. He was also an honorary advisor to the Dutch East Indies government in charge of Islamic matters. No doubt, his strategic position in the Dutch colonial government placed Sayyid Usman with vast influence and network in the Nusantara. In addition, he is also Snouck Hurgronje's best friend.¹¹

The beginning of Sayyid Usman's career was when he replaced his teacher Haji Abdul Ghani Bima as a teacher at the Pekojan Mosque. Haji Abdul Ghani Bima himself is one of the leading scholars in the Javanese colony in Makkah who chose to return to the Nusantara in his old age.¹² Sayyid Usman's grandfather, Sayyid Abdurrahman al-Mishri (d. 1847 AD), first came to the Nusantara in Palembang and Padang, at first to trade, then lived and settled in Petamburan, Batavia. In Petamburan, he built a mosque and devoted himself to teaching Islam. As is known, Sayyid Abdurrahman al-Mishri is recorded as an expert in the falak. Among his contributions is the accuracy and correction of the direction of the Qibla of several mosques in Palembang.

In his work in the Nusantara, Sayyid Usman was involved in many social issues, even controversial issues in the community. One of the problems that arose at that time was the problem of differences in the determination of the beginning of the month that often occurred. This problem eventually led him to write a book called "*Qaul ash-Shawāb*".¹³ Another problem that Sayyid Usman often faces in the community is related to the direction of the Qibla. For this issue, he wrote a book entitled "*Tahrīr Aqwā al-Adillah fī Tahshīl 'Ain al-Qiblah*". It is said that this book was written at the request of a number of people from Banjarmasin.¹⁴ The next development was that his student, Shaykh Muhammad Mansur bin Abdul Hamid Betawi (d. 1388/1968), codified Sayyid Usman's thought by writing a work entitled "*Sullam an-Nayyirain fī Ma'rifah al-Ijtimā' wa al-Kusufain*".¹⁵

In the context of falak Nusantara's study, Sayyid Usman's works and scientific contributions are essential treasures. The works he wrote show his response and concern for the astronomy problems and his sensitivity to the needs of the general public. As can be seen from his works, the issues he discusses are more on astronomical matters related to the worship of Muslims, especially regarding the direction of the qibla and hisab rukyat.

Its strategic position in the Dutch government, in fact, gave birth to Nusantara's astronomy network. His works and philosophical thoughts, especially those in which there are debates, encourage the figures and students who come afterwards to re-examine them. Therefore, looking at his works and his strategic position as a mufti and religious advisor at that time became an easy way to develop and gain knowledge in the community. Therefore, in the study of astronomy, Sayyid Usman is one of the essential actors in Nusantara's Falak network.

¹¹ Azyumardi Azra, *Jaringan Global dan Lokal Islam Nusantara*, h. 142.

¹² Nico J.G. Kaptein, *Islam, Kolonialisme, dan Zaman Modern di Hindia Belanda (Biografi Sayid Usman, 1822-1914)*, Terjemah: M. Yuanda Zara (Yogyakarta: Suara Muhammadiyah, 2017 M), h. 89.

¹³ Nico J.G. Kaptein, *Islam, Kolonialisme, dan Zaman Modern*, h. 97-98.

¹⁴ Nico J.G. Kaptein, *Islam, Kolonialisme, dan Zaman Modern*, h. 104.

¹⁵ Kitab ini pertama kali dicetak tahun 1344 H/1925 M oleh percetakan Borobudur, Batavia.

▪ **Jarengan Sayykh Muhammad Mukhtar bin 'Atharid (d. 1349/1930)**

Shaykh Muhammad Mukhtar bin 'Atharid was born in Bogor in 1278/1861 and died in 1349/1930. He is recorded as having studied with Sayyid Abdullah bin Aqil bin Yahya (Sayyid Usman's father) in Betawi, where his teacher had given him a diploma (scientific license). Shaykh Muhammad Mukhtar bin 'Atharid is also a generation that once studied in Haramain. Some of his teachers include Shaykh Ahmad Nahrawi, Sayyid Abdul Bary Ridwan al-Madani (d. 1358/1938), Shaykh Muhammad bin Abdul Kabir al-Kattani, and Sayyid Muhammad bin Ja'far al-Kattani.¹⁶ According to Ilyas, Shaykh Ahmad Khatib Minangkabau was also recorded as his teacher when he was in Haramain. In addition, he also studied with 35 or 50 scholars.¹⁷

Shaykh Muhammad Mukhtar bin 'Atharid was once trusted and appointed as a teacher of various sciences at the Grand Mosque with hundreds of students. It is even said that many students lived with him. He also opened a halakah at his residence in Jabal Abi Kubais.¹⁸ These students also spread their knowledge. Thus, the Shaykh Muhammad Mukhtar bin 'Atharid network expanded. Among his students were Shaykh Sulaiman Samdani (d. 1349/1930) and Shaykh Muhammad Zein Batubara (d. 1388/1968). The work of Shaykh Muhammad Mukhtar bin 'Atharid in the falak is "*Taqrīb al-Maqshad fī al-'Amal bi ar-Rub' al-Mujayyab*".¹⁹ This book discusses mathematical calculations (sinus, cosine, tangent, cotan), calculation of the direction of the Qibla, prayer times, and others.

▪ **Shaykh Muhammad Faqih Maskumambang Network (d. 1353/1937)**

Muhammad Faqih bin Abdul Jabbar Maskumambang (d. 1353/1937) was a great scholar from East Java, a philosopher and one of the founders of Nahdlatul Ulama. He was the uncle of Shaykh Ma'shum bin Ali Seblak (d. 1351/1933), who was also a philosopher. He was also a student of Shaykh Ahmad Dahlan Tremas, d. 1329/1911 (Shaykh Mahfuzh Tremas's younger brother, d. 1338/1920). Muhammad Faqih bin Abdul Jabbar Maskumambang was born around 1273 H/1856 AD in the village of Maskumambang, Gresik. At the same time, he died in 1353/1937 at the age of 80. In addition to mastering the falak science, he is also an expert in the fields of tafsir, monotheism, fiqh, nahwu, balagh, logic, usul fiqh, and others.

Shaykh Muhammad Faqih Maskumambang once studied in Haramain (Makkah) for three years. In Makkah, he and his colleagues (especially Hasyim Asy'ari and Munawir Krapyak) studied with Shaykh Mahfudz Tremas (who was then one of the teachers at the Grand Mosque). Shaykh Muhammad Faqih Maskumambang was a friend of Shaykh Hasyim Asy'ari (the founder of Nahdlatul Ulama) both while studying at the Shaikh Kholil Bangkalan Islamic Boarding School in Madura and while in Haramain.

Shaykh Muhammad Faqih Maskumambang gained his scientific insight from his father, Abdul Jabbar. Next, he studied at a number of Islamic boarding schools, such as the Kademangan Bangkalan Madura Islamic Boarding School under Sheikh Kholil Bangkalan, then the Langitan Tuban Islamic Boarding School (Lamongan), then the Kebondalem Islamic Boarding School in Surabaya, then the Ngelom Islamic Boarding School along Sidoarjo, and the Qomarudin Bungah Gresik Islamic Boarding School. From a number of

¹⁶ Umar Abdul Jabbar, *Siyar wa Tarājim Ba'dh 'Ulamā'inā fī al-Qarn ar-Rābi' 'Asyara li al-Hijrah* (Jeddah: al-Mamlakah al-'Arabiyyah as-Su'udiyah, cet. I, 1403 H/1982 M), h. 245.

¹⁷ Ahmad Fauzi Ilyas, *Syaikh Ahmad Khatib Minangkabau*, h. 418.

¹⁸ Ahmad Fauzi Ilyas, *Syaikh Ahmad Khatib Minangkabau*, h. 418.

¹⁹ Muhammad Mukhtar bin 'Atharid, *Taqrīb al-Maqshad fī al-'Amal bi ar-Rub' al-Mujayyab* (Surabaya: Toko Kitab Utama, n.t.), p. 3-6.

places of study, this is an indication that he has broad religious and social insight, which shapes his spiritual and intellectual performance.

The peak of insight and knowledge and, at the same time, forming the scientific network of Shaykh Muhammad Faqih Maskumambang was when he went to Haramain, precisely in Makkah, for 3 years. His residence for three years in this noble city was none other than to mature his knowledge, which he had basically mastered while in the Nusantara. The students of Shaykh Muhammad Faqih Maskumambang who have studied astronomy are Shaykh Ma'shum bin Ali and Shaykh Abdul Hadi. The latter character specifically studied falak from him. From the roles played by these two figures and others, they eventually formed a falak scientific network that had a significant influence in the Nusantara.

▪ **Shaykh Muhammad Thahir Jalaluddin's Network (d. 1376/1956)**

His full name is Muhammad Thahir bin Muhammad bin Jalaluddin Ahmad bin Abdullah. Born in Cangking, West Sumatra, in 1286/1869 and died in Kuala Kangsar, Perak, in 1376/1956. When he was 11 years old, he moved to Makkah to study science. In Makkah, he lived with Shaykh Ahmad Khatib Minangkabau at the house of Shaykh Muhammad Shalih al-Kurdi (the father-in-law of Shaykh Ahmad Khatib Minangkabau) when he studied with these two scholars.²⁰ In Makkah, he studied with a number of scholars, including Sayyid Umar Syatha, Shaykh Muhammad al-Khayyath (d. 1333/1919),²¹ and Sayyid Bakri Syatta. He also explicitly studied geometry and astronomy.²² In fact, this field became one of his leading specialists, so he was known as an influential falak figure at that time. It is worth noting that at that time, there were a number of scholars who mastered Falak, such as Shaykh Muhammad Nur bin Nik Mat Kecil (Fathani) and Shaykh Muhammad Jamil Jambek (Minangkabau) [d. 1366/1947], Shaykh Abdullah Fahim (Penang), and Shaykh Abu Bakar bin Hasan (Johor).²³ To a greater or lesser extent, these figures also influenced his astrological thinking.

After 14 years in Makkah, he continued his scientific activities in Egypt, specifically in Al-Azhar, where he stayed for 3 years.²⁴ Here, he was greatly influenced by the works and thoughts of Shaykh Muhammad Abduh and Shaykh Muhammad Rasyid Ridha. In addition, while in Egypt, he studied with Shaykh Husayn Zaid of Egypt and specifically studied the book "*al-Mathla' as-Sa'id*" by Shaykh Husayn Zaid of Egypt. One of his falak works entitled "*Nukhbah al-Taqrīrāt fī Hisāb al-Auqāt wa Sumūt al-Qiblat bi al-Lūghārīmā*" (which translates into Patikiraan) is the result of his study in Egypt from Shaykh Muhammad Abī al-Fadhil. After leaving Egypt, he returned to Makkah to teach and help Shaykh Ahmad Khatib Minangkabau's halaq.

²⁰ Mafri Amir, *Reformasi Islam Dunia Melayu-Indonesia Studi Pemikiran, Gerakan, dan Pengaruh Syaikh Muhammad Thahir Jalaluddin 1869-1956* (Jakarta: Badan Litbang dan Diklat Departemen Agama RI, cet. I, 2008 M), h. 44-45. Lihat juga: Haji Bachtiar Djamil, *Riwayat Hidup dan Perjuangan Syaikh Thahir Jalaluddin al-Falaki al-Azhari* (Kuala Lumpur: Asmah Publisher, 1994 M), h. 13-16.

²¹ He was Shaykh Muhammad bin Yusuf al-Khayyath (d. 1333 AH/1919 AD), a scholar of Mecca who taught various sciences in the Grand Mosque, especially hisab and astronomy. See: Muhammad Thahir Jalaluddin, *Pati Kiraan on Determining the Fifth Time and the Qibla Hala with Logarithms* (Singapore: al-Ahmadiyah Press, 1357/1938), p. 13.

²² Mafri Amir, *Islamic Reform*, p. 45.

²³ Wan Mohd Shaghir Abdullah, *Encyclopedia of Classical Manuscripts of the Archipelago* (Kuala Lumpur: Khazanah Fathaniyah, cet. I, 2015), p. 46.

²⁴ Hamka, *My Father* (Jakarta: Umminda, cet. IV, 1982), p. 275. Azyumardi Azra, *Global and Local Network of Islam Nusantara*, p. 188.

In 1899 AD, he returned to Nusantara, precisely to Malaysia, where he once served as a religious leader. In 1904 AD, he was appointed a member of the presiding council and chairman of the religion of the state of Perak. He was also offered the position of mufti, but he refused.²⁵ He also visited his homeland of Minangkabau in 1923 AD. His arrival gave strength and encouragement to young scholars who, at that time, experienced challenges from the old scholars (people). One of Shaykh Muhammad Thahir Jalaluddin's thoughts is his support for hisab in determining the beginning of the month. In fact, the popular view at that time in the Nusantara was to use rukyat, which was the opinion of the majority.

In the Nusantara, Shaykh Thahir Jalaluddin was recorded as having travelled to several regions, such as Riau, Singapore, and Malaysia. In Riau, he met King Muhammad Thahir Hakim, a Judge from the Riau Sultanate. Shaykh Muhammad Thahir Jalaluddin has also been to Surabaya, Buleleng, Ampenan (Bali), Sumbawa Island, Bima, and Gowa. Inevitably, his travels affirm the insights, roles, and gait of Sheikh Muhammad Thahir Jalaluddin in the Malay-Nusantara.

Conclusion

From the description above, it can be stated that the network, genealogy, and works (contributions) of Nusantara astrologers can be presented. The network and genealogy of the Nusantara's Falak science can be seen in the following ways: (1) through the tradition of hajj and scientific rihlah, (2) through the interaction of students, scholars, and pilgrims in Haramain, (3) through the role of Halakah of a number of figures (Falak) in Haramain, (4) through responses, questions, requests for fatwas, and correspondence coming from the Nusantara, and (5) through the role in Islamic Boarding Schools, mosques, and the community. Meanwhile, the works of the Nusantara's Falak scholars include works in the field of the beginning of the month (Hijri calendar), works on the Qibla, works on prayer times, works on Falak instruments, and works related to the problem (polemic) in the community.[]

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²⁵ Ahmad Fouzi Ilyas, *Sayykh Ahmad Khatib Menangkabau*, h. 493,

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