

The Influence of Hindu-Buddhist, Chinese, and European Culture in Exterior Architectural Characteristics of Mosque on Java Island Indonesia

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Abstract: The long period of acculturation among communities on the Island of Java has impacted the exterior architectural characteristics of mosques. Unlike mosques built in the Arab world, the architecture of mosque on Java is firmly influenced by a wide range of cultures. This study attempts to investigate adaptations and adoptions of Hindu-Buddhist, Chinese, and European cultures in the exterior architectural characteristics of mosques on Java Island Indonesia. The main objective of this study is to identify comparative characteristics of the exterior architectural elements of mosques as a result of multicultural adaptation on Java Island Indonesia. The study method is qualitative including academic literature review and direct observation to selected mosques for data collection. Observations of exterior architectural characteristics of the mosque focused on three important elements namely building mass, opening, and decoration. The number of mosques included in the study is nine in total and three for each category, representing Hindu-Buddhist, Chinese, and European Style Mosque. The results show that the exterior architectural characteristic of Hindu-Buddhist Style Mosque is influenced by syncretic religious beliefs that have prevailed for centuries on Java, Chinese-Style Mosque is influenced by Chinese architecture and art with emphasis in traditional symbols and motifs. European-Style Mosque is influenced by renaissance and baroque architecture with an emphasis on symmetry and balance. In conclusion, multicultural adaptations in exterior architectural characteristic of mosque do not change the function and value of mosque as well as eliminate its sacredness as Muslim worshipping place. However, it depicts the symbol of intercultural harmony, diversity, and tolerance among communities on Java Island Indonesia life.

Keywords: Hindu-Buddhist, Chinese, European, Exterior Architectural Characteristics, Mosque, Java.

1. Introduction

1.1 Background of the Research

Before the arrival of Islam on the Island of Java Indonesia, the vast majority of the indigenous population were animist, Hindu, and Buddhist believers. Islam came to the Island through gradual acculturation brought by Islamic missionaries, merchants, and immigrants originating from

overseas regions such as Arab, Gujarat, Champa, China, and the Malay Archipelago (Ashadi et al, 2015). The result of this Islamization was the establishment of massive Islamic religious buildings such as mosques and madrasa which become the first milestone for the rise of Islam in the Island and continue until the present day. According to the historiography of Islamic civilization on Java, several indigenous mosques have been identified and played a significant role in the development of

Muslim communities especially in Islamic teaching and spiritual practice (Budi, 2004). Some notable prominent indigenous mosques on Java include the Mosque of Saka Tunggal in Banyumas, the Mosque of Ampel in Surabaya, the Mosque of Sang Cipta Rasa in Cirebon, the Mosque of Banten in Serang, and Grand Demak Mosque in Demak Bintoro. Those mosques are considered the oldest Islamic Religious building on Java and still exist until present day despite some refurbishments for preservation. It is argued that all of mosques in the first period of Islamization have typical characteristics in many architectural aspects such as exterior, interior, and spatial layout.

The architectural characteristics of mosque on the Island of Java has been influenced by many cultures such as Hindu-Buddhist, Chinese, and European cultures. For example, Hindu-Buddhist cultural influence can be seen in the Grand Demak Mosque in Central Java. The mosque was established in the late 15th century when the first Islamic Kingdom took power over the Majapahit Kingdom during the reign of the first ruler Raden Fatah (Budi, 2014). Historically speaking, Grand Demak Mosque reveals the symbolic adaptations of pre-existing traditions and the local culture of Java. Unlike mosques built in the Arab World, the material used in the construction of mosque is predominantly timber and it was built by local Javanese carpenter (Ashadi et al, 2015). The architect of the mosque was Sunan Kalijaga, one of prominent Islamic Saint who had significant contributions in the spread of Islam on the Island of Java. Javanese communities view the evidence of this mosque as a first milestone for the rise of Islam in the aftermath of Majapahit Kingdom downfall.

Furthermore, the architectural characteristic of mosques on the Island of Java has also been influenced by Chinese culture. Chinese cultural influence in the design of mosques can be found mostly on the northern coast of Java where the majority of the Muslim Chinese population have been settled since their arrival in the 15th century (Al Qurtuby, 2012). The adaptations of Chinese culture in Exterior design of the mosque on Java Island have profoundly revealed in several architectural elements such as the building façade, roof, minaret, details of ornament, and combination of colors. An example of a Chinese-Style Mosque is the Muhammad Cheng Ho Mosque which is located in several cities across Java. The name Cheng Ho was taken from the prominent Muslim Admiral

who spread Islam on the Island of Java during his expedition in 14th century (Hasanah et al, 2022).

Another cross-cultural footprint in the design of a mosque on Java is the internalization of European cultural influence. This happened due to the expansion of Europeans in Eastern world hemisphere in search of spices in the late 16th century. Starting from the Portuguese colony, followed by British and ended up by Dutch occupation (Anwar & Hapsoro, 2019). As a result, European architectural adaptation and adoption were inevitable in the development of Javanese architecture and mosque is no exception. Several mosques had been influenced by European architectural style such as Cut Muetia Mosque in Jakarta, Manonjaya Mosque in West Java, and Cipaganti Mosque in West Java. European cultural influence in exterior architectural characteristics of mosque depicted profoundly in its element of façade, shape of openings, and typical renaissance and baroque decorations which predominantly portrayed on the wall (Saliya, Hariadi & Tjahjono, 2000).

However, despite the influences of multiculturalism in the design of the Mosque on Java Island are inevitably significant, research discussing about this adaptation remains minimal and fragmentary. The understanding of how the adaptation of multicultural traditions influences the design of a Mosque is relatively limited. There are considerable debates among scholars about the conclusions of architectural mosque transformation and adaptation on Java Island Indonesia. Therefore, due to the importance of understanding of identity of Islamic Mosque Architecture on Java Island, studies on the influences of multiculturalism in the exterior architectural design of a mosque will be undertaken. This research will become a bridging point to understanding the characteristics of the exterior architecture of a mosque on Java Island.

1.2. Objectives of Research

Studies on the influence of Hindu-Buddhist, Chinese, and European Culture in the Exterior Architectural Characteristics of the Mosque on Java Island are pivotal as they will provide positive objectives in many ways. The objectives are divided into two different categories namely general and specific objectives.

In terms of its general objective research, this research aims to provide comparative characteristics

of exterior architectural characteristics of mosques as a result of significant adaptations and adoptions of Hindu-Buddhist, Chinese, and European cultures that have existed in the land of Java over the centuries.

In terms of its specific objective of research, there are three main objectives that will be taken into account. First, this research will identify the influence of Hindu-Buddhist Culture according to exterior architectural elements of mosque on Java Island. Second, this research will identify the influence of Chinese Culture according to exterior architectural elements of a mosque on Java Island Indonesia. This research will identify the influence of European Culture according to the exterior architectural elements of mosques on Java Island Indonesia.

1.3. Questions of Research

To achieve the objectives of the research, this study will provide important questions of research which will be examined in a more detailed analysis in the following chapters. Questions of research include:

- What is the influence of Hindu-Buddhist Culture according to the exterior architectural elements of a mosque on Java Island Indonesia?
- What is the influence of Chinese Culture according to the exterior architectural elements of a mosque on Java Island Indonesia?
- What is the influence of European Culture according to the exterior architectural elements of a mosque on Java Island Indonesia?

2. Literature Review

2.1 The Indigenous Mosques of Java

To begin with, this paper attempts to provide an academic review regarding the indigeneity of mosques on Java and how multiculturalism affects the development of mosque architecture by taking one of the oldest indigenous mosques on Java, Grand Demak Mosque as an example. First of all, the indigenous mosque of Java mostly reveals the symbolic adaptations of pre-existing traditions and the local culture of Java since the

arrival of Islam. Unlike mosques built in the Arab World, the material used in the construction of the building is predominantly timber and it was built by a local Javanese carpenter (Ashadi et al, 2015). In terms of its roof construction, the majority of indigenous mosques on Java incorporate three basic pyramidal forms called by Tajug. The upper structure is supported by Saka Guru or four circular wooden teak pillars which have a diameter of 35 cm for each column. The symbolic meaning of three pyramidal roofs has been adapted to the concept of the Meru Formation, a sacred mountain in Hinduism Mythology (At toyyibi & Widyastuti, 2021). Interestingly, the architect attempted to re-adapt and re-brand the syncretism of three layer of pyramidal roofs with the incorporation of Islamic values. As a result, there was a change in the symbolic meaning of Tajug (Ashadi et al, 2015). The first layer of roof symbolized the concept of Iman as the absolute transcendence to one God. The second layer of roof symbolized the concept of Islam as the proof of surrender to God. The third layer of roof symbolized the concept of Ihsan as the representation of sincerity and perfect humble human being who dedicate himself for the sake of worship to one God. Finally, the carved ornament written Allah was put at the top of roof and become the symbol of God's dignity over the universe (Kusyanto, Triyadi & Wonohardjo, 2019).

In terms of its layout, the indigenous mosque of Java plan consists of a main hall called a Dalem and front veranda which is known as a Pringgitan. This hall is provided for male and female groups and it is separated by space not by wall. The design of prayer hall is open-plan with cross ventilation that allows fresh air circulation across the mosque (Satwiko et al, 2023). In terms of its entrance, people might enter the mosque through two main doors located in its frontage. The door is carved with motifs of vases, plants, crowns, and Javanese ornaments that resemble local customs and folklore. In Javanese terminology, this main entrance is widely known as Lawang Bledheg or the doors of thunder. It is firmly believed that the layout of the Mosque is very similar to the type of traditional house on Java with a larger portion with an approximate size of three times bigger than a normal housing plan (Ashadi et al, 2015).

Furthermore, the indigenous mosque of Java reveals a mystical beliefs in the component of building (Saliya, Hariadi & Tjahjono, 2000). This can be seen from the availability of space dedicating

for the graveyard of kingdom family, local rulers, national heroes, and prominent Islamic scholars in almost mosque. This has made the mosque not only for the place of worship but it also can be a place for monument of remembrance that enable visitors to pay respect to the legacy of their ancestors. In addition, another mysticism can be seen from the number of pillars, height of ceiling, width of door, and details of ornament in each side of Mosque (Kusyanto, Triyadi & Wonohardjo, 2019). All of these elements imply significant meanings that strengthen the characteristics of the mosque as well as provide spiritual energy for every visitor.

Another interesting point of view from the indigenous layout of the Mosque can be seen from the position of its Mihrab which directs to the Northwest Axis of Alun-Alun or city square which located in front of Mosque. The master plan of mosque within Alun-Alun reveals mystical concept that implies Javanese Hindu-Buddhist Layout (Ashadi et al, 2015). This coordinate system of Alun-Alun has been widely known as Nawa Sangah or Nine Directions. Before the arrival of Islam, the orientation of master of plan of Hindu city squares must be directed to major temples of Hindu in Singasari, Kediri, or Majapahit Capital in Trowulan. However, after the arrival of Islam there was some adjustments and changes in Nawa Sangah direction from the temple of Hindu in Trowulan Majapahit towards Qibla in Mecca (Ashadi et al, 2015).

In conclusion, the indigeneity of Mosque on Java Island has been predominantly influenced from the tradition of Hinduism and Buddhism. This is because during pre-Islamic Period, the majority of communities on Java was under Hindu and Buddhist Kingdom rule, such as the Kingdom of Majapahit. Afterwards, Islamization gained its momentum and attempted to incorporate its values without eliminating local culture and tradition (Nasution, 2016). Therefore, the existence of indigenous mosque was the continuity of pre-Islamic tradition played a very significant role in characterizing local customs as well as introduce the essence of Islam in the beginning of Islamic period in the land of Java.

2.2. The Exterior Architectural Elements

Several definitions of exterior architectural element have been identified in different architectural glossaries. According to some academic sources, the term of exterior architectural

element has two different meanings. First, Exterior architecture element is defined as portion of exterior of building and structure which is open to public place and street that allow people to view (Mínarovičová, 2016). Second, Exterior architecture element also can be defined as the architectural design an arrangement of the exterior of a structure that consist of windows, material, doors, signs, light fixtures, color, and roof (Frias, 2011). From both definitions, it is clear that exterior architecture element includes portion of exterior of the building structure that can be viewed by people from public way with complex architectural arrangements such as material and texture of building, openings, mass of building, and other appurtenant exterior fixtures.

Furthermore, the definition of exterior architecture element also is found in the dictionary of Britannica. It includes roof, texture, color, openings, and fencing located outside the surface of building which can be seen by people. In another meaning, it can be argued that exterior design consists of the external aspects of buildings such as materials, color schemes, and landscapes that create a visually functional and pleasing exterior for building. The exterior design could increase value to building as well as establish a better identity and sense of the neighborhood. Increasingly, Terauchi and his research team (2002) argued that elements of Exterior design include texture, color, form, and mass of building that impact on a building's overall appearance. The table below is a summary of exterior architectural features based on comprehensive analysis of its definitions.

Table (1). Exterior Architectural Elements

Exterior Features	Elements
Building Form	Roof, Wall, Minaret, Structure
Openings	Window, Door
Decoration	Outdoor Artwork, Ornament

Increasingly, Exterior architectural element has principles which are important in the design of building (Terauchi et al, 2002). Those principles include balance, scale, and proportion of building. The first principle is balance which means that exterior design has to focus on the distribution of visual weight which can combine symmetry and asymmetry shape in order to achieve harmony. The second principle is scale which means that exterior design has to include the appropriate size of elements that enable building to adapt to

surrounding environment and neighborhood. The third principle is proportion which means that exterior architecture element has to strengthen the relationship between building and environmental elements such as windows, doors, verandas, and patios. Based on these principles it can be concluded that Exterior architecture elements play a significant role in characterizing a structure of building as well as provide visually functional elements that enable building to increase its identity and sense of neighborhood.

2.3 The Hindu-Buddhist Cultural Influences on Mosque Exterior Characteristics

The adaptations of Hindu-Buddhist culture in Exterior Architectural Characteristics of mosque on Java Island have been revealed in several aspects. First, it can be seen from the appearance of tiered roof “Tajug” in all of selected mosques (Idham, 2021). This kind of pyramidal roof predominantly consist of two to five stories in which the roof narrows upward. At the ended point of three stacked pyramidal roof can be found Islamic Ornaments written the name of Allah or Crescent Moon as one of the prominent Islamic Symbol. Originally, there was no connection between the shape of the pyramidal roof with Islamic tradition. Because there is no evidence showing that this kind of roof design found in overseas mosques (Idham, 2021). The pyramidal roof was actually referring to Hindu religious building in the Island of Bali called Pura and Wantilan. This Hindu religious complex can be profoundly identified in the island of Bali where the majority of its population is Hinduism (Bambang, 2004).

Another interesting adaptation of Hindu-Buddhist culture in exterior architectural characteristic of mosque be seen from the existence of Veranda or Surambi (Purbahanggita & Prianto, 2021). The availability of patio in front area of mosque has influenced to the shape of exterior design. Originally, the concept of veranda itself adapted from traditional Javanese dwelling as it has the function as guest reception. However, in the context of mosque, the Veranda function is usually used for multi purposes such as for performing Pengajian or a congregation for Islamic learning, non-religious activities such as public gathering, and it also can be used as a buffer before entering the main mosque. The example of mosques which use Veranda can be seen from entire selected mosques in Menara Kudus Mosque, Grand Demak Mosque, and Kauman Mosque, and Mataram Gede Mosque. Increasingly, the evidence of veranda will not be complete without the existence of pool containing of clean water. This pool surrounds along the square in front of the mosque. The function of the pool is for allowing people to clean their feet and take ablution before entering the mosque and ensure that everyone is clean before performing Islamic ritual activities (Purbahanggita & Prianto, 2021).

In terms of Minaret, historically since pre-Islamic era indigenous community on Java do not have tradition for building tall monument. Therefore, it can be argued that the majority of mosque in the first period of Islamic era do not incorporate minaret into their mosque master plan (Bambang, 2004). In fact, the use of minaret was introduced by Muslim Scholars who came from overseas such as Arab and India. Minaret was firstly built as a place for calling a prayer and putting a

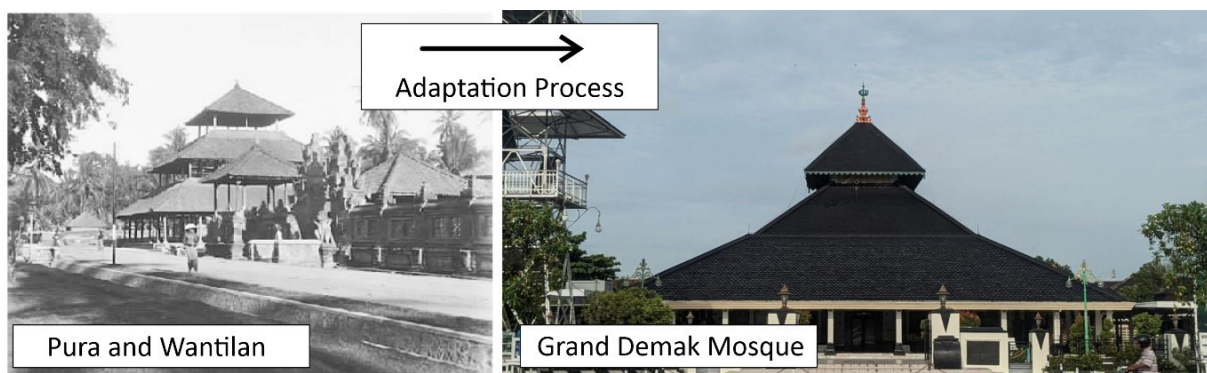


Figure (1). Adaptation of Pura in Hindu Religious Complex to the shape of Mosque on Java with tiered Roof

“Bedug” that resonate the voice of drum as a sign for prayer preparation (Wahby, 2008). The design of minaret is varied depending on cultural tradition. for the instance, Grand Mosque Demak Minaret was made of steel, Menara Kudus Mosque Minaret was made from local brick with its clear adaptation from Hindu temple. However, in today’s modern era, the majority of mosque have been built in one package with minaret. It is because Minaret plays an important role as a place for putting electric sound box which allow Muathin to call daily five prayers. This evidence has shown that the configuration of minaret has represented the symbol of religious innovation which is essential for encouraging Muslim communities for performing daily prayers (Wibowo, Arif, Sasano & Shiro, 2016).



Figure (2). Adaptation of Bale Kulkul to the shape of Mosque Minaret in Central Java Indonesia

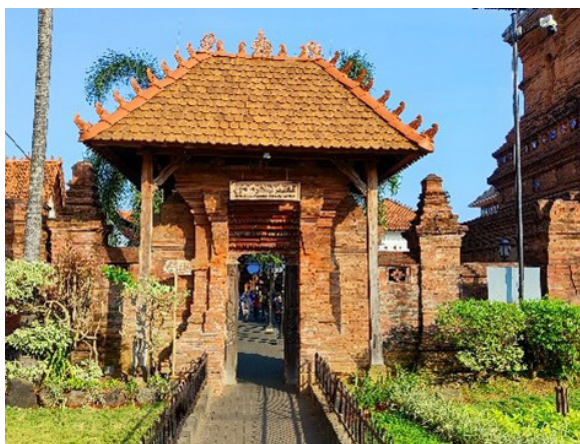


Figure (3). Gapura and Fence of Hindu-Buddhist Mosque

In terms of the fencing system, the traditional mosque on Java is commonly surrounded by special boundary wall which adapts characteristics to Hindu-Buddhist temple walls. This evidence can be seen from Mataram Mosque in Kotagede Yogyakarta and Mosque of Menara Kudus which surrounded by traditional boundary walls made from traditional local bricks. In the middle axis of boundary wall there is Gapura or main gate as the first entrance to mosque yard. This fencing system is also called by Jagang that function as the guardrail for mosque protection. Generally speaking, the concept of Gapura was originally taken from Hindu Architecture (Wahyudie et al, 2021). In Hindu religious building this kind of entrance can be called as Dawara, Dwara, and Bapra. Those names were adoptions from Sanskrit word for identifying the gate in Hindu terminology. However, after Islamization this terminology has been replaced by Gapura which taken from Arabic “Gha-Fu-Ra” or Repentance.

Increasingly, the mosque on Java has profoundly applied ornaments in their exterior architecture design. The variety of ornaments in exterior design of mosque can be categorized into several motifs such as (1) human motifs, (2) geometric motifs, (3) animal motifs, (4) technological object motifs, (5) natural object motifs, (6) growth motifs, plant, and calligraphy (Lee-Niinioja & Hee Sook, 2022). However, there is a debate about the application of creature motifs since Islamic tradition does not allow the use of human or animal depictions in religious buildings. Therefore, in its implementation, some modifications are made especially for decorative human and animal motifs ornaments. As a result, flora and nature motifs were introduced and applied with an additional touch of religious. Some popular flower ornaments include tumpals, kala-makaras, lotus flowers or buds, and scrolls which have become the sacred character and being available predominantly since pre-Islamic period (Lee-Niinioja & Hee Sook, 2022).

The majority of materials used for ornament and openings are made from wood or timber (Bambang, 2004). Then those materials are combined with several colors that could demonstrate the symbol of beauty and goodness such as red, grey, and brown. Therefore, it is obvious that most ornaments applied in openings and exterior façade of mosque predominantly used those colors in combination with wooden material. This is



Figure (4). Local Javanese Hindu Ornaments in Exterior Mosque

because in pre-Islamic tradition era the majority of indigenous community did not recognize concrete or another alternative of construction materials (Sedayu et al, 2021). However, the use of timber has been an authentic Javanese architecture style that can support cultural tradition.

2.4 The Chinese Cultural Influences on the Mosque Exterior Characteristics

The adaptations of Chinese culture in Exterior design of mosque on Java Island have profoundly revealed in several architectural features especially from the combination of color and Chinese symbols (jin, 2023). First, it is noticeable that the majority of Chinese-Style Mosque on Java Island apply combination of red, yellow, gold and green pattern in their exterior facade. One of the notable examples can be seen from all of selected Muhammad Cheng Ho Mosques in the city of Jember, Surabaya, and Pasuruan which use red color as the basis for their exterior wall design. Those colors have specific interpretations and meanings which are important for Chinese traditional belief. In Chinese tradition, red color is the representation of happiness and good luck (Fauziyanti, 2022). Therefore, in modern era Chinese people highly valued the red color at the same time also they prohibit the use of reddish symbol at funerals because its contradiction to the symbol of happiness. Increasingly, the green color is believed as the interpretation of life, harmony, prosperity, and health. Last but not least, the color of yellow and gold is the representation of neutralization and strength. It can be argued that the interpretation of Yellow is based on Chinese belief of Yin and Yang in which the color can reveal a symbol of power (Raya, 2023).

Furthermore, the majority of Chinese building

believe to cosmological concept called Fengshui and Taoism and mosque is no exception. In Chinese building principles it is necessary to apply specific pattern, cardinal direction, numbers, and colors as design guideline. For the example, the symbol of good luck Koi carp is always put as the ornament of building. Another cosmological symbol also can be found in the façade of Chinese mosque. It is common to be identified that ornaments in building façade include eight symbolic elements called Pat Kwa Philosophy which consist of Chen (Sky), Tui (Metal), Li (Fire), Chien (Lightening), Sun (Wind), Ken (Mountains), Kan (Water), and Kun (Earth). Those philosophic symbol also can be viewed as the system of cosmogony referring to the basis of Ancient Chinese Civilization (Fauziyanti, 2022).



Figure (5). The Shape Chinese Mosque Minaret in East Java

The application of Chinese culture in the design of roof and minaret also shows significant values (Raya, 2023). In Chinese mosque the type of roof and minaret is pyramidal with a range of layers from five to eight. The shape of layer is the interpretation of natural elements such as water, fire, earth, metal, and wood. For the example, it can be clearly seen that in the entrance of first gate of Cheng Ho Mosque in Sempusari Jember (see Fig.5). The eight-pointed roof in upper level symbolize eight foundations which are important for achieving fortune and happiness according to Chinese traditions. Furthermore, the structure of roof consists of five-tiered colored with red painting combination with green and golden pattern (Mahfud, 2014). The combination of elements is categorized as Fengshui and becoming the manifestation of Qi. This concept has become the inspiration to the design of modern Chinese mosque. However, Islam has made modifications by replacing the concept of fengshui to Islam, Iman, and Ihsan. This kind



Figure (6). The shape of roof in Chinese Muslim Mosque on Java

of architectural interpretation can be seen in the roof of Mosque Cheng Ho in Surabaya Indonesia (Fauziyanti, 2022).

In terms of lighting system, the majority of Chinese mosque and building use red lanterns like the earth (Ain, 2023). This artefact has red color and round like balls with a diameter between 25 and 50 centimeters. The shape of lantern in the lighting system of Chinese Mosque is viewed as a symbol of prosperity, unity, and sustenance. Therefore, the use of lantern in Chinese cultural activities is very frequent especially during Chinese festivals such as Chinese New Year and Cap Go Meh. Lanterns hung in the strategic place of building and according to Chinese value it symbolizes a sign of good luck (Mahfud, 2014).

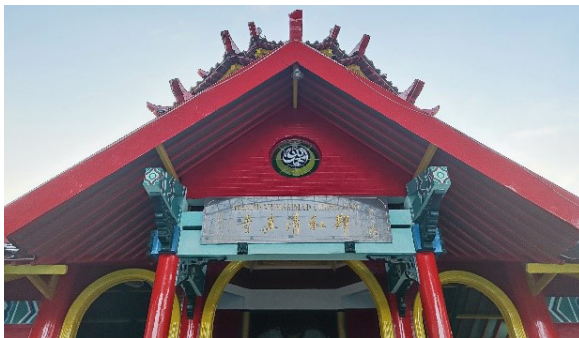


Figure (7). Chinese, Roman, and Arabic Alphabetical Words in Exterior of Cheng Ho Mosque

Nonetheless, the façade of Chinese mosque it is commonly found flower motifs applied as the decoration of building. The motifs are made from wooden material in combination with distinctive colors of ornament such as green, blue, and red. The flower motifs in mosque façade decoration symbolizes prosperity, peace, beauty,

and compassion (Hasanah et al, 2022). In Chinese tradition, flower also can be viewed as a symbol of nature that can make heart more peaceful. Increasingly, the appearance of Chinese motifs is combined with Calligraphy written the verse of Quran and Prophetic words. Arabic calligraphy and Chinese writing are depicted in blackboard with the text written with golden marker. The example of this can be seen from the name of mosque in Muhammad Cheng Ho Mosque which is written in three different alphabetical words namely Chinese, Arabic, and Roman word (Fauziyanti, 2022).

In conclusion, the acculturation of Chinese culture in exterior design of mosque on Java Island is predominantly adapted from traditional building in the region of China. The influence of Chinese culture can be firmly seen in several aspects of exterior features such as building form, minaret, opening, materials, and detailed ornaments across building façade. The combination of Chinese culture and Islamic value has shown harmonious and adaptive configuration in its exterior architecture design. The assimilation between Chinese and Islamic tradition has strengthened and promoted tolerance, peace, and diversity across communities on the Island of Java.

2.5 The European Cultural Influences on Mosque Exterior Characteristics

The acculturation of European culture in the exterior architecture design of mosque in Indonesia has been depicted in several architectural features. Since the arrival of European settlers for colonialization, there was internalization and adaptations between theirs and local culture on the Island of Java (Izzati, Husna & Andiyan, 2021). This adaptation also can be seen from several mosques that have European style. This evidence

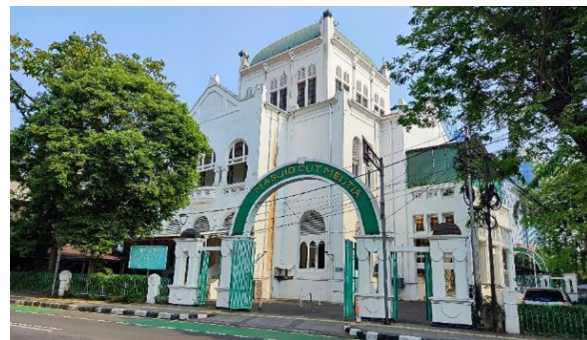


Figure (8). European Exterior Characteristic Style Mosque in Jakarta Java Island

has been essential in the development of Indigenous mosques in Indonesia specifically on Java Island. The adaptive characteristics of European culture in the mosque façade on Java Island will be explained based on three important aspects namely upper interface, body interface, and lower interface.

In terms of upper interface, European culture influence the shape and material of roof mosque (Anwar & Hapsoro, 2019). It is noticeable that the average shape of roof is the combination of shield and saddle. Increasingly, material used for covering the roof is local such as clay tiles and wood shingles. Another characteristic of roof can be seen from its height which the roof frame has higher dimension more than 3 meters. The objective of design is to show impressive outlook of building as well as it would provide fresh air circulation. This is because the high roof frame of roof could filter the air from surrounding environment before entering to the building. In the context of climatic condition, the kind of this design in tropical area of Indonesia is very relevant since it could provide better response to humidity and hot weather (Ardiyanto et al, 2015).



Figure (9). European minaret mosque style in West Java

In terms of body structure, the façade wall of mosque is predominantly concrete with the form of asymmetrical (Anwar & Hapsoro, 2019). The major color in the mosque is white in combination with masonry brick. This style is very classic and it has strong connection with Art Deco and Roman architecture. In the middle of mosque, there is a main entrance that has distinct characteristics which are different with building skin. In addition, the form of mosque shows aesthetic details and

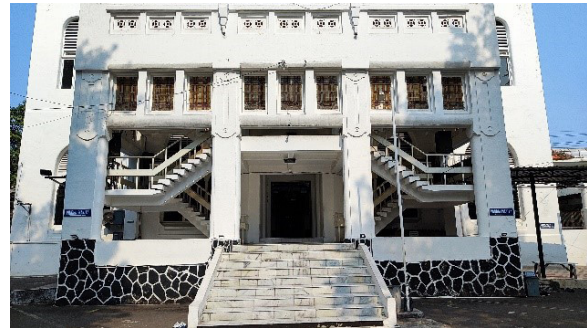


Figure (10). European Influence in Exterior Mosque Structure

elements it each corner of building. For example, the evidence of curve wall in the corner of mosque and art deco details in openings of building such as door and window (Ardiyanto et al, 2014).

In terms of lower structure, base of building is surrounded by brick stucco and floor coverings are made from terrazzo and tiles (Anwar & Hapsoro, 2019). In addition, patch elements in the lower structure could provide impression of sturdy and bulky building due to the form of natural stone attached in the foot of building body. The column stands in the porch area of mosque provide a firm and distinctive effect on the façade of building. A strong column with details of iconic Doric shows impressive characteristic as it provides luxurious style of design (Ardiyanto et al, 2015).

In conclusion, the acculturation of European culture in exterior design of mosque on Java Island adapt to the existence of tropical climate. These adaptations include high pitched roof, floor elevation, wide window that allow fresh and natural air circulation through ventilation. In addition, the form of façade is predominantly asymmetrical with concrete material and strong white paint. Some art deco ornaments are applied for beatification of building as well as show impressive stylistic design.

3. Research Methodology

Research in identifying the influence of Hindu-Buddhist, Chinese, and European culture in the exterior architectural characteristic of Mosque on Java Island is primarily qualitative, including literature review and direct observation (Sulaksono, Adas & Almainani, 2023). The flow of research will consist of five phases as stated in (Figure 10) below.

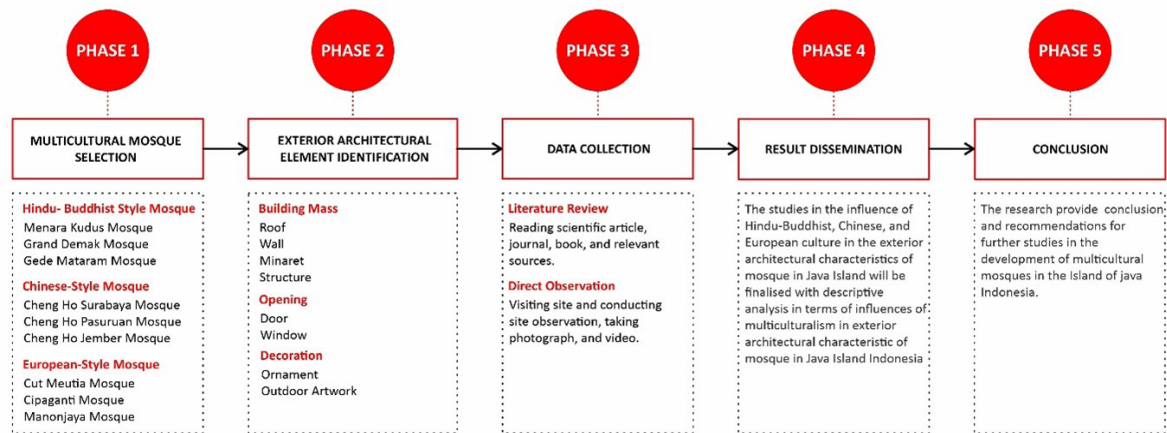


Figure (11). Methodological Framework for Identifying Influences of Multiculturalism in Exterior Architectural Characteristic of Mosque

At the first phase, the study selects a number of mosques which have influences from three different cultures such as Hindu, Chinese, and European Culture. For the Hindu-Style Mosque, the author selects Menara Kudus Mosque, Grand Demak Mosque, and Gede Mataram Mosque. Those three mosques are located in Central Java and Yogyakarta Province and believed as representative of Hindu-Style mosques with strong influence in their Exterior Architectural Characteristics. For Chinese-Style Mosque, the authors select Cheng Ho Mosque in Surabaya, Sempusari, and Pasuruan. Those mosques are located primarily in East Java province. Cheng Ho Mosques have fascinating characteristics in their exterior interface. For European-Style Mosque, the author selects Cut Muetia Mosque in Jakarta, Cipaganti Mosque in West Java, and Manonjaya Mosque in West Java. Those European-Style Mosques were designed by Dutch architect with adaptations to local climate and indigenous architecture.

At the second phase, the authors determine exterior architectural elements which taken from literature review as basis for exterior characteristic identification from each selected mosque. There are three essential categories which were analyzed during the process of documentation such as building mass, openings, and decoration. Building mass category consists of roof, wall, minaret, and exterior structure which appear in the interface of the mosque. Openings category include of door and window which located in the surrounding exterior of mosque. Finally, the decoration consists of both ornament and outdoor artwork which show the identity and characteristics of the mosque from

cultural perspectives.

In the third phase, data relevant to exterior architectural characteristics were collected through a literature review and direct observation. The process of the literature review was conducted by reading scientific articles, books, and journals which a to correlate with the topic of the thesis dissertation. Second, the process of direct observation was conducted by visiting selected mosques. During academic survey, the author took photograph, video, and additional sources which were found in the location.

At the fourth phase, the studies in the influence of Hindu-Buddhist, Chinese, and European culture in exterior architectural design of mosque on Java Island were finalized with descriptive analysis in order to provide comparative studies of multicultural characteristics of mosque on Java Island Indonesia.

At the fifth phase, the research provides conclusion and recommendations for further studies in the development of multicultural mosques across the Island of java Indonesia.

4. Result and Discussion

4.1 The Exterior Architectural Characteristics of Building Mass

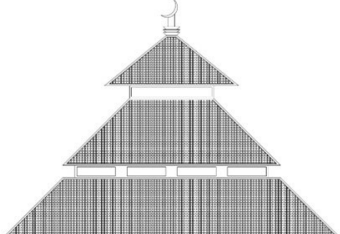
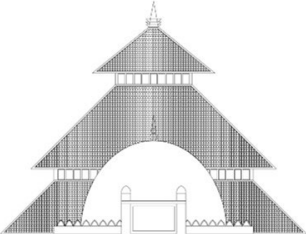
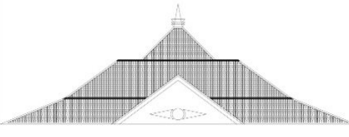

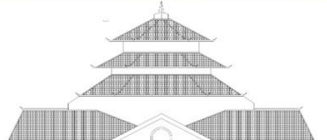
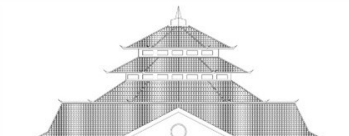
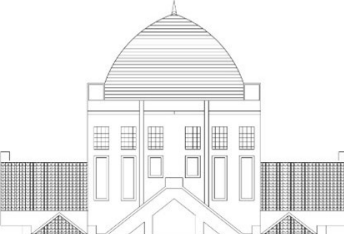
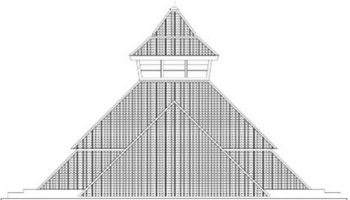
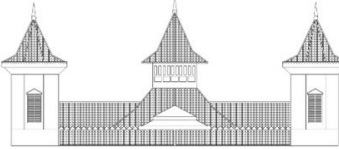
The exterior architectural characteristics of mosque in the element of building mass consist of four features namely roof, minaret, wall, and structure. This section attempts to provide comparisons of Hindu-Buddhist, Chinese, and European mosques based on this building mass element.

4.1.1 The Roof Characteristics

First of all, in terms of Hindu-Buddhist influenced mosque roof, it is clearly seen that the Hindu-Buddhist roof style in the Javanese mosque predominantly incorporate the concept of Meru in their roof design (Table 2). This kind of roof consider the most distinctive feature and also can be called as the pagodas style. The type of Meru concept is tiered roof with pyramidal shape. This kind of roof has three levels which narrow upwards to the top as it represents the symbol of Islam namely Iman,

Islam, and Ihsan (Purbahanggita & Prianto, 2021). In addition, the Meru roof of Mosque on Java is predominantly decorated with intricate traditional carvings such as kalamakara (mythical Garuda birds), lotus flowers, and geometric patterns which are inspired from the Hindu-Buddhist temple architecture characteristic (Lee-Niinioja & Hee Sook, 2022). This kind of roof type has been identified at all selected mosques namely Menara Kudus Mosque, Grand Demak Mosque, and Gede Mataram Mosque.

Table (2). Comparative Classification of Roof Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island

HINDU-BUDDHISM ROOF MOSQUE CHARACTERISTICS		
Grand Demak Mosque Central Java	Menara Kudus Mosque Central Java	Gede Mataram Mosque Yogyakarta
		
CHINESE ROOF MOSQUE CHARACTERISTICS		
Cheng Ho Mosque Surabaya	Cheng Ho Mosque Pasuruan	Cheng Ho Mosque Sempusari
		
EUROPEAN ROOF MOSQUE CHARACTERISTICS		
Cut Muetia Mosque	Cipaganti Mosque	Manonjaya Mosque
		

Furthermore, it is almost identical with the Hindu-Buddhist style, the Chinese mosque roof incorporate multiple tiers with curved roofs. Chinese influenced roof has tiered eaves which supported by brackets with the creation of distinctive layered silhouette reminiscent of traditional Chinese temples (Jin, 2023). For the example, all of mosques Cheng Ho has been identified with three tiers which progressively narrow vertically with eaves.

Finally, the European roof mosque style has different characteristics compared to Hindu-Buddhist and Chinese Style. European influenced mosque predominantly adopts dome-shaped roofs with decorated turrets which referred from Renaissance style. Unlike the Javanese roof mosque with traditional timber and thatched roofs, the European influenced mosque on Java mostly constructed from brick and concrete such as Cut Meutia Mosque in Jakarta. However, other mosques like Manonjaya and Cipaganti Mosque adopt combination roofs with blended European and Javanese styles by adopting tiered roofs alongside with solid gables. Despite the roof incorporate European architecture elements, the European influenced mosque roof considers tropical climatic condition that show a response to sunny and rainy effect (Satwiko et al, 2023).

4.1.2. The Minaret Style

First of all, in terms of Hindu-Buddhist influenced mosque minaret, it is argued that the existence of minaret in the Javanese mosque has distinctive characteristics (Table 3). It is clearly seen that the majority of Hindu-Buddhist influenced minaret mosque base is square and it is typically divided into several tiers with significant reflections to different ornamental design. This type of minaret can be clearly seen in Menara Kudus Mosque and Gedhe Mataram Mosque where the Minaret shows fascinating blend of Islamic and Hindu-Buddhist architectural elements. The ornamentation depicted in Hindu-Buddhist Mosque minaret is varied consisting of floral patterns, Makara, and aesthetic Hindu-Buddhist geometric shapes. In addition, Arabic calligraphy and religious text are commonly inscribed in the surface of brick and stone within the minaret (Lee-Niinioja & Hee Sook, 2022).

Furthermore, the Chinese Mosque minaret on Java Island Indonesia is highly inspired from reminiscent pagoda with tiered roofs. The roofs have five levels and octagonal curve upwards with

multiple distinct eaves (Jin, 2023). In addition, the combination of traditional Chinese glazes with vibrant colors such as yellow, green, red, and blue adorns the surface of minaret which enable to demonstrate of elegance and cultural flair as can be seen in the exterior minaret of Cheng Ho Mosque in Sempusari East Java.

Finally, the research shows that there is no evidence that European influenced mosque apply minaret in their architectural design except in Cipaganti Mosque. This is because European culture does not have tradition of building minaret in their religious and worshipping building (Anwar & Hapsoro, 2019).

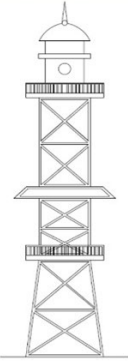
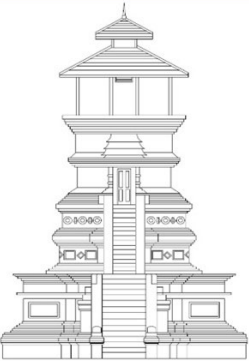

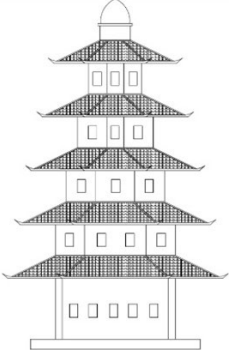
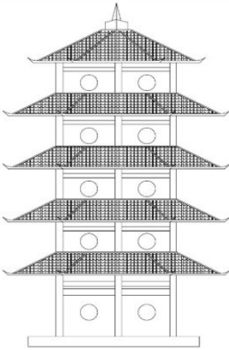

4.1.3. The Wall Style

First of all, in terms of exterior wall, the Hindu-Buddhist influenced mosque exterior walls on Java typically utilize the combination of terracotta, brick, and wooden material (Table 4). These materials are often decorated by intricate carvings and reliefs showing mythical creatures such as Kalamakara and Garuda and floral patterns. These decorative elements have symbolic definitions as it represents spiritual growth, cosmic balance, and divine protection (Lee-Niinioja & Hee Sook, 2022). In addition, Islamic calligraphy blended harmoniously with Hindu-Buddhist ornaments adorning the walls and showing the strong identity of mosque as a place for worship for Muslim community. This type of exterior walls characteristics can be found in almost Hindu-Buddhist influenced mosques such as Menara Kudus Mosque, Demak Mosque, and Gedhe Mataram Mosque.

Furthermore, the Chinese influenced mosque exterior walls on Java utilize the combination of brick and wood materials. Carved wooden doors and beams with intricate details and patterned red bricks as decorative patterns on the walls. In addition, the combination of yellow, green, red, and blue are used in the exterior walls, symbolizing prosperity, joy and harmony as well as reflecting Chinese aesthetic preferences (Fauziyanti, 2022). This evidence can be found in all selected Cheng Ho Mosques on Java.

Finally, the European influenced Mosque exterior walls have feature pointed arches as it can be seen the overall shape of the mosque's façade. In addition, the color of white is dominant in the entire surface of mosque in combination with stone and solid concrete as building material. The use of these

Table (3). Comparative Classification of Minaret Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island

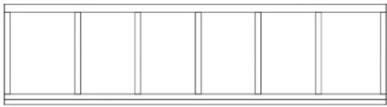
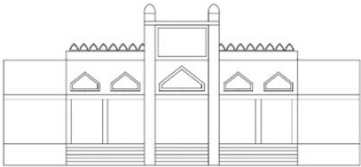
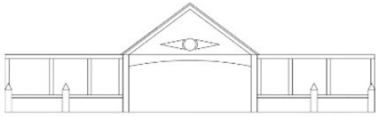
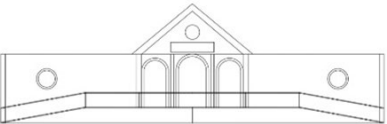
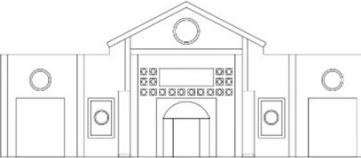



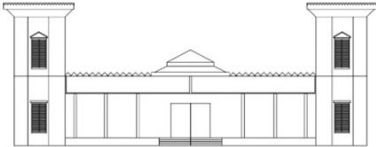
HINDU-BUDDHISM MINARET MOSQUE CHARACTERISTICS		
Grand Demak Mosque Central Java	Menara Kudus Mosque Central Java	Gede Mataram Mosque Yogyakarta
		
CHINESE MINARET MOSQUE CHARACTERISTICS		
Cheng Ho Mosque Surabaya	Cheng Ho Mosque Pasuruan	Cheng Ho Mosque Sempusari
NO EVIDENCE		
EUROPEAN MINARET MOSQUE CHARACTERISTICS		
Cut Muetia Mosque	Cipaganti Mosque	Manonjaya Mosque
NO EVIDENCE		NO EVIDENCE

materials provides a sense of solidity and grandeur (Ardiyanto et al, 2015). Despite the application of European architecture style, the walls also adjust tropical approach for addressing local climatic challenges on Java Island. This can be seen from the wall of Cut Meutia Mosque, Manonjaya Mosque, and Cipaganti Mosque.

4.1.4. The Structure Style

First of all, in terms of exterior structure, the Hindu-Buddhist influenced mosque feature a base which is wider in order to elevate the structure and create the sense of grandeur (Table 5). In addition, the exterior column is slender and tall with a smooth surface with intricate carvings. The materials used for main structure are brick and stone while the

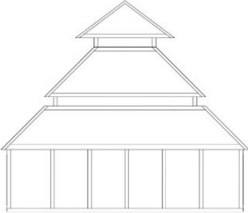

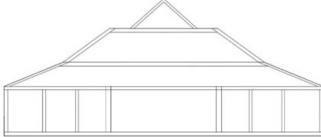

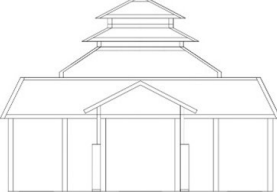
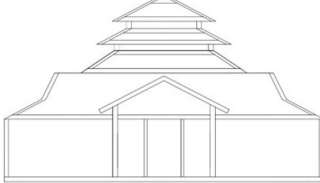
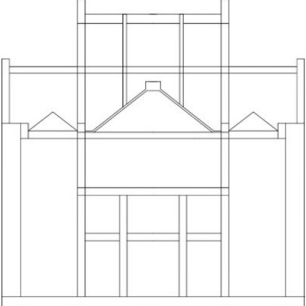
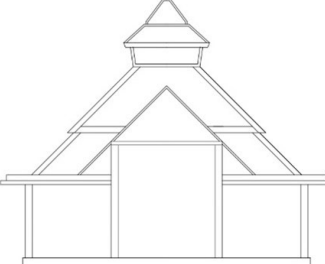
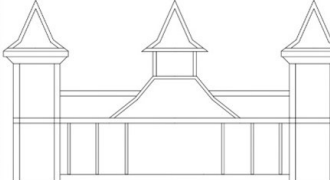
Table (4). Comparative Classification of Wall Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island

HINDU-BUDDHISM WALL MOSQUE CHARACTERISTICS		
Grand Demak Mosque Central Java	Menara Kudus Mosque Central Java	Gede Mataram Mosque Yogyakarta
		
CHINESE WALL MOSQUE CHARACTERISTICS		
Cheng Ho Mosque Surabaya	Cheng Ho Mosque Pasuruan	Cheng Ho Mosque Sempusari
		
EUROPEAN WALL MOSQUE CHARACTERISTICS		
Cut Muetia Mosque	Cipaganti Mosque	Manonjaya Mosque
		

column in some mosques utilize timber. The slender columns symbolize the mythical mount of Meru as it was considered as the axis mundi in Hindu-Buddhist cosmology (Purbahanggita & Prianto, 2021). It is also found that the style of columns in Hindu-Buddhist influenced mosques are varied depending on the region. It is evident that the mosque columns in Central Java is slender and the mosque columns in East Java is ornate.

Furthermore, the Chinese influenced mosque columns on Java are typically made of wood with intricate carvings and the combination of red and black paintings. Increasingly, materials used for building structure are wood, brick, and stone with significant emphases in balance, symmetry, and harmony. In each column commonly include Dougong a type of bracket system which is used for supporting the roof of mosque (Jin, 2023).

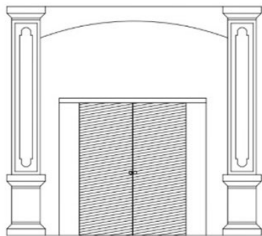
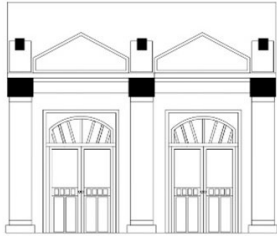
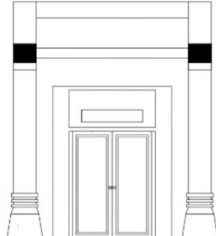
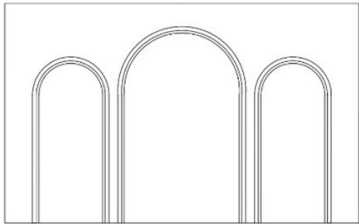
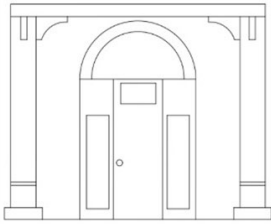
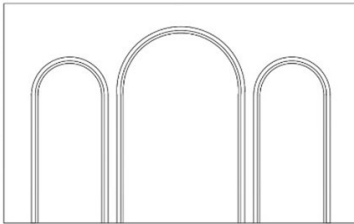
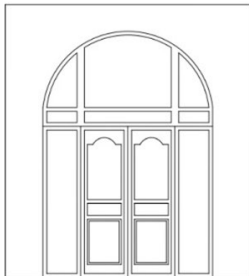

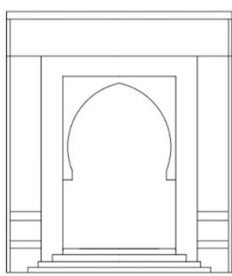
Table (5). Comparative Classification of Structure Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island

HINDU-BUDDHISM STRUCTURE MOSQUE CHARACTERISTICS		
Grand Demak Mosque Central Java	Menara Kudus Mosque Central Java	Gede Mataram Mosque Yogyakarta
		
CHINESE STRUCTURE MOSQUE CHARACTERISTICS		
Cheng Ho Mosque Surabaya	Cheng Ho Mosque Pasuruan	Cheng Ho Mosque Sempusari
		
EUROPEAN STRUCTURE MOSQUE CHARACTERISTICS		
Cut Muetia Mosque	Cipaganti Mosque	Manonjaya Mosque
		

Finally, the European influenced mosque on Java uses composite column that combine elements of both Corinthian and Ionic orders with an emphasis on clean lines and geometric forms. In addition, the materials used in the European influenced mosque are brick for walls and concrete and stone for columns and beam. These materials

show a monumental and durable appearance as well as reminiscent of European architecture. However, despite European influences, adaptations and integrations of local design traditions are incorporated to the structure of mosque in order to be suitable with tropical conditions on the Island of Java (Satwiko et al, 2023).

Table (6). Comparative Classification of Door Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island

HINDU-BUDDHISM DOOR MOSQUE CHARACTERISTICS		
Grand Demak Mosque Central Java	Menara Kudus Mosque Central Java	Gede Mataram Mosque Yogyakarta
		
CHINESE S DOOR MOSQUE CHARACTERISTICS		
Cheng Ho Mosque Surabaya	Cheng Ho Mosque Pasuruan	Cheng Ho Mosque Sempusari
		
EUROPEAN DOOR MOSQUE CHARACTERISTICS		
Cut Muetia Mosque	Cipaganti Mosque	Manonjaya Mosque
		

4.2 The Exterior Architectural Characteristics of Openings

The exterior architectural characteristics of mosque in the element of openings consist of two features namely door and window. This section attempts to provide comparisons of Hindu-Buddhist, Chinese, and European influenced mosques based on this exterior opening element.

4.2.1. The Door Style

First of all, in terms of door, the Hindu-Buddhist influenced mosque door predominantly made from wooden materials with distinctive characteristics (Table 6). The pattern of door intertwined geometric shapes such as squares, stars and octagons with complex tessellations called “arabesque” pattern in combination with traditional Hindu-Buddhist motifs such as floral pattern, mandala, and mythical creatures that represent nature, cosmic balance and divine perfection in Islamic Art (Wahyudie et al, 2021). In addition, entrance portals in Hindu-Buddhist influenced mosque might be reminiscent of temple gateways called Gapura with specific symbol of transition from the mundane to sacred. This evident can be seen from doorways of Menara Kudus and Grand Demak Mosque with intricate floral carvings, pointed arches, and a makara figure adorning the base.

Furthermore, the Chinese-influenced mosque door utilizes timber as the main material with lacquered finishes in black, green, and red which demonstrate a sense of vibrancy and protection. The shape of Chinese influenced door is rectangular with circular “moon gates” which symbolize fortune and harmony (Ain, 2023). The type of door is double-leafed featuring intricate metal hinges and ornate door knockers.

Finally, European influenced mosque has a greater emphasis on symmetry and balance. This evident can be seen from the placement of arches and decorative elements around door frames as a common feature. This shape adds depth and visual interest to the otherwise flat surfaces. The incorporation of European elements in the shape of door shows sophistication and sense of grandeur.

4.2.2. The Window Style

First of all, in terms of window, the Hindu-Buddhist influenced mosque window has a significant similarity with the characteristics

of door (Table 7). The window might feature pointed arches that resembles Hindu and Buddhist architecture with intricate carvings of flower motifs and makara figure. The materials used for window are primarily wood and stone with intricate Hindu-Buddhist carvings. Furthermore, the Chinese influenced mosque window use latticework frames with auspicious symbols and geometric patterns. The shape of window offers better ventilation which enable fresh air circulation inside the mosque. Also, the frame of window uses red color which symbolizes good fortune and joy and black which represents sophistication and elegance, and gold signifies prosperity and wealth (Fauziyanti, 2022).

Finally, European influenced mosque window uses glass window which is prevalent in the Javanese culture. The use of glass enables natural light and fresh air circulation. Increasingly, European-style stain glass windows used geometric patterns and religious scenes depiction which offer vibrancy and harmonious attachment to the mosque.

4.3. The Exterior Architectural Characteristics of Decoration

The exterior architectural characteristics of mosque in the element of decoration consist of two features namely ornaments and outdoor artwork. This section attempts to provide comparisons of Hindu-Buddhist, Chinese, and European influenced mosques based on this exterior decoration element.

4.3.1. The Ornamentation Style

First of all, in terms of ornaments, the Hindu-Buddhist influenced mosque has fascinating and unique characteristics (Table 8). The exterior of mosque incorporates Hindu-Buddhist motifs such as floral patterns, kalamakara, and geometric shapes. These motifs are carved into the brickwork, stone, and wall of mosque. Floral and geometric patterns inspired by traditional Javanese batik textiles and it is associated with purity and spiritual enlightenment (Bambang, 2004). In addition, the ornament of mosque is decorated with Arabic calligraphy with verses from the Quran and Hadith.

Furthermore, the Chinese influenced mosque ornament focus on harmony and balance. Chinese art use symmetrical layouts, natural motifs, and geometric patterns. Most Chinese ornaments are typically made from natural materials such as stone, brick, and wood carved by simple patterns. In addition, Chinese ornament focus on symbolism

Table (7). Comparative Classification of Window Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island

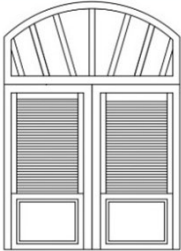
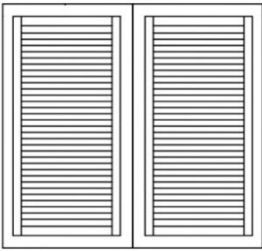
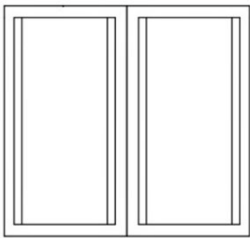
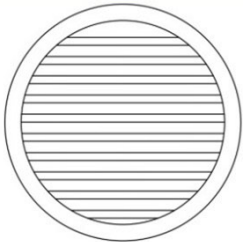
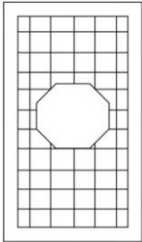
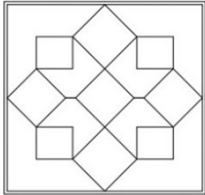
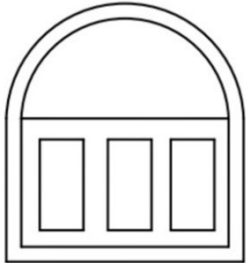
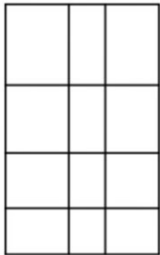

HINDU-BUDDHISM WINDOW MOSQUE CHARACTERISTICS		
Grand Demak Mosque Central Java	Menara Kudus Mosque Central Java	Gede Mataram Mosque Yogyakarta
		
CHINESE S WINDOW MOSQUE CHARACTERISTICS		
Cheng Ho Mosque Surabaya	Cheng Ho Mosque Pasuruan	Cheng Ho Mosque Sempusari
		
EUROPEAN WINDOW MOSQUE CHARACTERISTICS		
Cut Muetia Mosque	Cipaganti Mosque	Manonjaya Mosque
		

Table (8). Comparative Classification of Ornamentation Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island










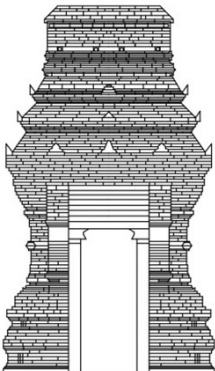

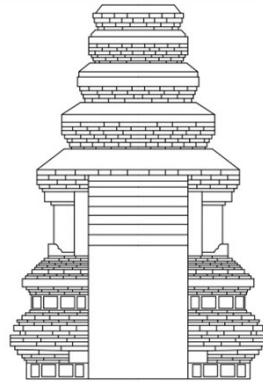
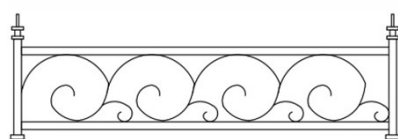
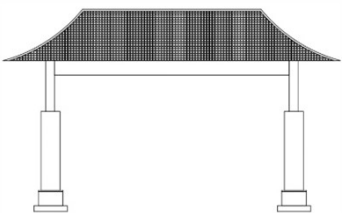

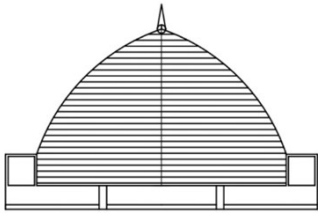
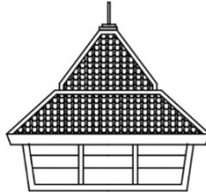
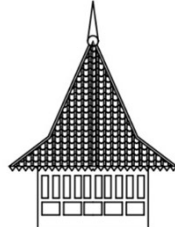
HINDU-BUDDHISM OUTDOOR ORNAMENTATION MOSQUE CHARACTERISTICS		
Grand Demak Mosque Central Java	Menara Kudus Mosque Central Java	Gede Mataram Mosque Yogyakarta
		
CHINESE OUTDOOR ORNAMENTATION MOSQUE CHARACTERISTICS		
Cheng Ho Mosque Surabaya	Cheng Ho Mosque Pasuruan	Cheng Ho Mosque Sempusari
		
EUROPEAN OUTDOOR ORNAMENTATION MOSQUE CHARACTERISTICS		
Cut Muetia Mosque	Cipaganti Mosque	Manonjaya Mosque
		

Table (9). Comparative Classification of Outdoor Artwork Characteristics - Hindu-Buddhist, Chinese, and European Style Mosque on Java Island

HINDU-BUDDHISM OUTDOOR ARTWORK MOSQUE CHARACTERISTICS		
<p>Grand Demak Mosque Central Java</p> 	<p>Menara Kudus Mosque Central Java</p> 	<p>Gede Mataram Mosque Yogyakarta</p> 
CHINESE OUTDOOR ARTWORK MOSQUE CHARACTERISTICS		
<p>Cheng Ho Mosque Surabaya</p> 	<p>Cheng Ho Mosque Pasuruan</p> 	<p>Cheng Ho Mosque Sempusari</p> 
EUROPEAN OUTDOOR ARTWORK MOSQUE CHARACTERISTICS		
<p>Cut Muetia Mosque</p> 	<p>Cipaganti Mosque</p> 	<p>Manonjaya Mosque</p> 

and color representing specific meaning and complex message (Hasanah et al, 2022). For the example, red is associated with happiness and good luck while black is associated with mourning and death.

Finally, the European influenced mosque on Java has ornament pointed arches and ribbed vaults. This ornament inspired by Renaissance architecture with a significant sense of height and grandeur. In addition, floral and geometric patterns are incorporated in the mosque ornament such as tile work, wood carvings, and stuccowork. Also, figurative elements are sculpted in the mosque ornament. European influence demonstrates the inclusion of geometric shapes and stylistic floral that hint at figurative forms (Ardiyanto et al, 2015).

4.3.2. The Outdoor Artwork

First of all, in terms of outdoor artworks, the Hindu-Buddhist outdoor artworks across the Javanese mosque are varied with distinctive characteristics (Table 9). For the example, stone sculpture in entrance gates with skillful stone carving techniques, inspired from Hindu-Buddhist temple construction with fascinating ornamental reliefs and elements. In addition, outdoor artworks in Hindu-Buddhist influenced mosque can be seen from intricate carved columns and bracket with geometric patterns and brick motifs. This decoration might represent reminiscent of Hindu-Buddhist temple ornamentation (Lee-Niinioja & Hee Sook, 2022).

Furthermore, the Chinese influenced mosque outdoor artwork is associated with mythical Chinese traditional artefact. They are usually sculpted as figurines adorning the ridges as motifs on the fence, wall, column, and tiles. In addition, exposed wooden beams and brackets under the eaves are a hallmark of Chinese mosque that demonstrates a sense of visual complexity and structural support (Jin, 2023).

Finally, the European influenced mosque outdoor artwork can be seen from round and pointed arches that replaced the traditional Javanese roof with their straight lintels that showing a sense of grandeur and verticality to the structures (Izzati, Husna & Andiyan, 2021). Also, decorative cornices and moldings around the building have become a common feature with visual interest and depth to the otherwise flat surfaces.

5. Conclusion

The influence of Hindu-Buddhist, Chinese, and European culture in exterior architectural characteristic of mosque on Java Island can be classified into three different exterior elements namely building mass, opening, and decoration.

First, in terms of building mass element, Hindu-Buddhist Style Mosque is firmly influenced by syncretism and mystical belief which have been existed since pre-Islamic era especially during the reign of Majapahit Dynasty. Subsequently, Chinese influenced building mass is influenced by indigenous Chinese traditional ornamentations and Fengshui concept taken from Taoist monastery which originated from the land of China. Finally, European building mass element is influenced by colonialism architecture especially Dutch who took rules in the country for centuries.

Second, in terms of opening element, Hindu-Buddhist style opening influenced by traditional carvings and motifs such as mandala, floral pattern, and mythical creatures that represent nature, cosmic balance, and divine perfection in Islamic Art. Furthermore, Chinese style opening is commonly made from wooden material in combination with different types of color such as green, black, and red. Motifs of flower and traditional Chinese symbol are incorporated in the surface of opening as a representation of prosperity, peace, beauty, and compassion value. Finally, European style opening emphasize in the placement of arches and decorative elements around door and window frames. The architecture of renaissance and colonialism in the opening show depth and visual interest to the façade of mosque.

Third, in terms of decoration, Hindu-Buddhist decoration of Mosque on Java has fascinating and unique characteristics and it can be seen as reminiscent of Hindu-Buddhist pre-Islamic architecture period. Furthermore, Chinese decoration has a significant emphasise in the application of mythical Chinese creatures in both ornament and outdoor artwork. The decoration is usually sculpted as figurines adorning the ridges as motifs on the fence, wall, column, and tiles. Finally, European decoration of Mosque on Java inspired from Art Deco and Renaissance Architecture with white as a dominant paint on the mosque façade. In addition, the existence of ornament with pointed arches and ribbed vaults with floral and geometric patterns showing the sense of height and grandeur.

Last but not least, despite all of adaptations and adoptions, the influence of Hindu-Buddhist, Chinese, and European culture in the exterior architectural characteristic of mosque do not change the function and value of mosque as well as eliminate its sacredness as Muslim worshipping place. However, it depicts the symbol of intercultural harmony, diversity, and tolerance among communities on Java Island Indonesia.

In the final notes of this research, the authors suggest that there must be the continuity and further studies regarding multicultural mosques on Java Island from different architectural perspectives. For the example, from its interior, spatial, layout, and social perspectives. This will be essential for the development of Islamic Architecture on Java Island as well as provide new insights in favor of indigenous mosques preservation in the future.

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تأثير الثقافات الهندوسية البوذية والصينية والأوروبية على الخصائص المعمارية الخارجية للمسجد في جزيرة جاوة بإندونيسيا

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ملخص البحث. لفترة طويلة، أثرت الثقافات المختلفة، التي تعاقبت على جزيرة جاوة، في الخصائص المعمارية الخارجية للمساجد. وعلى عكس المساجد التي بُنيت في العالم العربي، فإن هندسة المساجد في جاوة تتأثر بشكل كبير بمجموعة واسعة من الثقافات. حيث تسعى هذه الدراسة إلى استقصاء التكيف والتحول من الثقافات الهندوسية - البوذية والصينية والأوروبية في الخصائص المعمارية الخارجية للمساجد في جزيرة جاوة بإندونيسيا. ويهدف هذا البحث بشكل رئيس إلى تحديد خصائص المقارنة للعناصر المعمارية الخارجية للمساجد نتيجة للتكيف متعدد الثقافات في جزيرة جاوة بإندونيسيا. وتعتمد منهجية الدراسة على مفاهيم نوعية تشمل مراجعة المؤلفات الأكاديمية والدراسات التحليلية للمساجد المختارة بهدف جمع البيانات. وتركز الدراسة في الخصائص المعمارية الخارجية للمسجد على ثلاثة عناصر مهمة وهي: كتلة المبنى، والفتحات، والزخارف. ويشمل عدد المساجد المعنية بالدراسة تسعة مساجد إجمالاً، وثلاثة مساجد لكل فئة ثقافية وهي الثقافة الهندوسية - البوذية والصينية والأوروبية. كما تظهر نتائج الدراسة أن الخصائص المعمارية الخارجية للمسجد ذي الطراز الهندوسي - البوذي تتأثر بالمعتقدات الدينية التوفيقية التي سادت لقرون في جاوة، حيث يتأثر المسجد ذو الطراز الصيني بالعمارة والفن الصيني مع التركيز على الرموز والزخارف التقليدية. أما المسجد ذو الطراز الأوروبي فيتأثر بطراز عصر النهضة والباروك مع التركيز على التناسق والتوازن. وفي الختام، تشير الدراسة إلى أن التعديلات الثقافية المتعددة في الخصائص المعمارية الخارجية للمسجد لا تغير وظيفة المسجد وقيمه، كما لا تقضي على قدسيته بوصفه مكان عبادة للمسلمين. ومع ذلك، يصور المسجد رمز الوثام بين الثقافات والتنوع والتسامح بين المجتمعات في جزيرة جاوة بإندونيسيا.

الكلمات المفتاحية: الهندوسية، البوذية، الصينية، الأوروبية، الخصائص المعمارية الخارجية، المسجد، جاوة.