



## Public Perception on Calligraphic Woodcarving Ornamentations of Mosques; a Comparison between East Coast and Southwest of Peninsula Malaysia

Ahmadreza Saberi<sup>1</sup>; Esmawee Hj Endut<sup>1</sup>; Sabarinah Sh Ahmad<sup>1</sup>; Shervin Motamedi<sup>2,3</sup>; Shahab Kariminia<sup>4</sup>; Roslan Hashim<sup>2,3</sup>

<sup>1</sup> Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Shah Alam, 40450, Malaysia  
Email: [saberi.ahmadreza@gmail.com](mailto:saberi.ahmadreza@gmail.com)

<sup>2</sup> Department of Civil Engineering, Faculty of Engineering, University of Malaya, 50603, Kuala Lumpur, Malaysia

<sup>3</sup> Institute of Ocean and Earth Sciences (IOES), University of Malaya, 50603, Kuala Lumpur, Malaysia

<sup>4</sup> Department of Architecture, Faculty of Art, Architecture and Urban Planning, Najafabad Branch, Islamic Azad University, Najafabad, Isfahan, Iran

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### **Abstract**

Woodcarving ornamentation is considered as, a national heritage and can be found in many Malaysian mosques. Woodcarvings are mostly displayed in three different motifs, namely floral, geometry and calligraphy. The application of floral and geometry motifs is to convey an abstract meaning of Islamic teachings to the viewers. However, the calligraphic decorations directly express the messages of Allah almighty or the sayings of the prophets to the congregations. Muslims are the main users of mosques as these are places for prayers as well as other religious and community activities. Therefore, the assessment of users' opinion about this type of decoration needs to be investigated. This paper aims to evaluate the perception of two groups of mosque users on the calligraphic woodcarving ornamentations from two regions, namely the East Coast and Southwest of Peninsula Malaysia. As Arabic is not the primary language in Malaysia, it would be interesting to find out how much of the calligraphic ornamentation is recognised and understood by the mosque users. The quantitative approach and questionnaire survey were adopted to fulfil the objectives of the study through convenient sampling where 420 questionnaire surveys were distributed at eight selected mosques. A total of 408 respondents amongst users completed and returned the survey forms. The mosques were chosen based on the abundance and diversity of calligraphy woodcarving elements found in the prayer hall. The Mann-Whitney U-test was conducted to find out the differences between the two groups of respondents. Ability of reading and understanding the Arabic scripts, the aesthetic values, the function, appropriate location and finally the desirability of scripts were assessed and compared between the participants of North East and Southwest of Peninsula Malaysia. The results showed that respondents of two areas in Malaysia had different opinions about this traditional sacred ornamentation in mosques. However, there were also similar ideas regarding to the items of variables between two evaluated groups of the study.

**KeyWords:** Mosque Ornamentation, Public Perception, Calligraphic Woodcarving, Malaysia

## 1. Introduction

The arrival of Islam into Malay Peninsular took place in the early 14<sup>th</sup> century. Islam was introduced to the indigenous Malay people through the Arab merchants who came to Melaka port for trading in the early 15<sup>th</sup> century (Nasir, 1987). Within a few years, the multitude of mosques with varied architectural styles were built (Henderson, 2003). The decoration of mosques was not an issue in the early years. As time passed, these sacred buildings were ornamented through different decorative elements including vernacular and expatriated motifs. The floral patterns had been used in Malay architecture even before Islam (Kamarudin & Said, 2009). However, foreign cultures introduced other types of motifs including calligraphy and geometry to the Malay craftsmen who soon became experts (Utaberta, Sojak, Surat, Che-Ani, & Tahir, 2012). The local Muslims accepted the new decorative elements and particularly the calligraphy. The religious inscriptions as decorative elements were in the main concern of Muslims since they convey the messages of Quran and the Prophet Muhammad.

The purpose of this study is to compare the perception of mosque users from two regions (Southwest and East Coast of peninsula Malaysia) regarding Islamic inscriptions, which are mainly used as a decorative element in Malaysian mosques. The assessed factors included subjective aspects of calligraphic ornamentations such as the function and location of these sacred ornamentations. Meanwhile, public interests regarding to the legibility, aesthetic and preference of different types of scripts, which are mainly used in decorative inscriptions were examined. *Thuluth*, *Kufi*, *Naskh*, *Nastaliq* and *Diwani* are five common decorative scripts, not only in Malaysia, but also in many other Islamic countries.

Moreover, the scope of study covered two important regions in Malaysia, which have their own Islamic background and history. The researcher selected Melaka as one of the study area because Muslims Arab traders started to spread Islam from this region of Malaysia. The other selected region is Terengganu and Kelantan states in East Coast of Malaysia. The reason for choosing East Coast would be the ancient inscribed stone, which was found in the *Tarsat* River at *Kuala Brang*, *Terengganu* (Fig 1). The inscriptions on the stone are about Islamic Law and Malay kingdom and it was dated 4 *Rejab* 702 *Hijri* equal to 22 February of 1303, about 100 years before Islam came to Melaka. The stone is a valid evidence of arrival of Islam to these areas (Ahmad & Resad, 2015; Utaberta et al., 2012).

## 2. Ornamental Scripts in Architecture

The Umayyad caliphs started to apply calligraphy in architectural decoration (Hillenbrand, 1999). Further, Hillenbrand also stated that the magnificent time for calligraphic art was between 11<sup>th</sup> and 12<sup>th</sup> centuries, when beautiful epigraphic inspirations in the Islamic lands emerged. Subsequently, creative designers developed novel styles of writing to demonstrate sacred *Quranic* messages through varieties of scripts.

### 2.1 Common Ornamental Scripts

Despite the variety of Arabic calligraphy, only a few of them are suitable to be implemented in architectural ornamentations (Etikan, 2008). The most common Arabic architectural scripts are shown in figure 2. *Kufi* had been one of the primary applied scripts in architectural decoration during the early Islamic time. The squared *Kufi* was the main focus of architectural decoration through reliefs on bricks applied on building façades. Etikan (2008) also noted that the *Kufi* script is undoubtedly the result of a designers' aspiration to innovate to respond to the need for religious decorative forms in the Islamic sacred art. Although *Kufi* script shows disordered proportion of vertical and horizontal characters, the overall features of the script is completely eye-catching.



Fig. 1 The inscription stone found in Terengganu (Ahmad & Resad, 2015)

The *Kufi* and other scripts originated from *Kufi* can be related to the group of angular scripts, while the other Arabic scripts which are demonstrated in the above figure are belonged to the cursive group of scripts (Blair, 2006). The origin of curved scripts is from the early decades of the Islamic developments since the roots of composition and scripts' feature came from pre-Islam era (Hillenbrand, 1999). The most frequent architectural cursive scripts are *Thuluth*, *Nastaliq*, *Naskh* and *Diwani*.

One of the popular scripts among calligraphers is *Thuluth* style. It is one of the primary cursive scripts, created in the 7<sup>th</sup> century (Suleiman, 1999). *Thuluth* is prominent for its stylish flexibility, which gives a remarkable complexity to this writing style. Professional calligraphers believe that the *Thuluth* script is the optimum and artistic type of script to be used as architectural ornamentation (Suleiman, 1999; Turgut, 2014). *Naskh* as one of the cursive scripts was designed to make the readability of the Quran easy for Muslims (George, 2010). Although *Naskh* was mainly used to write the Quran, many designers observed it suitable as decorative element in mosques. *Nastaliq* has a rather new background compared with the other cursive scripts. This writing style originated from three former scripts namely *Tawqi*, *Riq'a* and *Taliq*. The scripts were launched from Iranian calligraphers that altered the very rounded forms, mixed them into the characteristics of the *Riq'a* script and overstated horizontal strokes of *Taliq* alphabets. Then the new ornamented writing style was created (Suleiman, 1999). However, it must be noted that *Nastaliq* script has not been commonly applied in woodcarving decorative elements since the way of pen movements is more suitable for ceramic decoration. *Diwani* script is another writing style which has been innovated by the Ottomans in Turkey. It was named as the *Diwani* script since it was used in the Ottoman *Diwan* (government). The readability of this writing style is intricate and people in the Turkish government used it as the secret writing style which the public could not read (Osborn, 2009). *Diwani* has been implemented as an ornamental element in architecture mainly in Middle East countries.

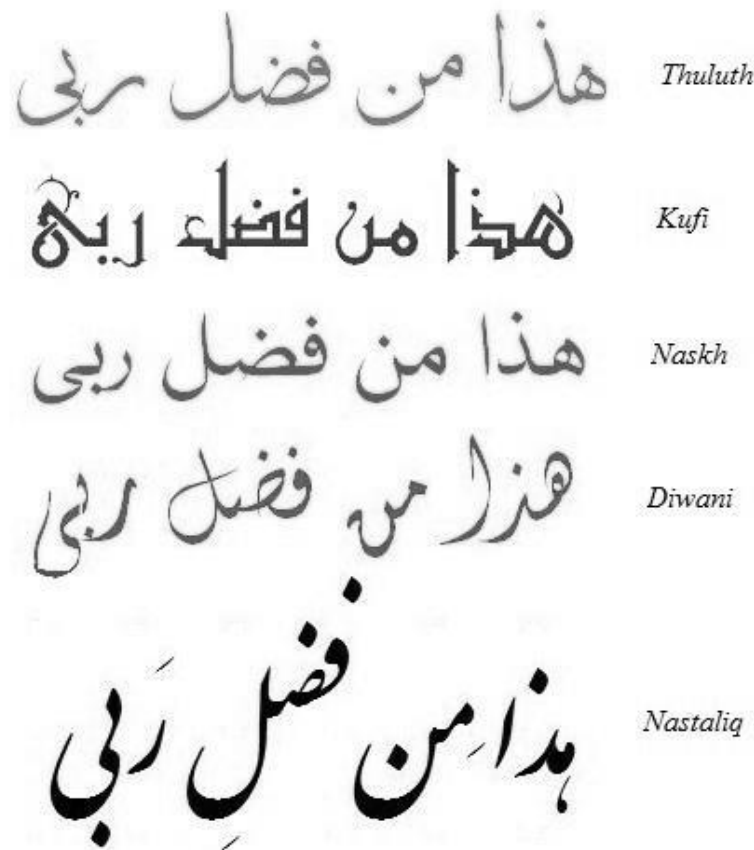


Fig. 2 The five most common ornamental scripts

### 3. Public Perception

The word “public perception” has been widely used in academic research from early 20<sup>th</sup> century. The definitions stresses on the aspect of participation of public as a main element in the procedure of assessments (Shahedi, Keumala, & Yaacob, 2012). Majority of social scientists determine public perception to be a reasonable invention of democracy in a society (Shahedi et al., 2012). Ahn (2007) claimed that there are various factors which affect assessments of public. The geographical factors have their own influence on our perception since different environments make different point of view. The cultural varieties in different parts of countries or even gender differences create a diversity of opinion regarding to subjects including architectural decorations (Najafi & Kamal, 2012; Saberi, Endut, Ahmad, Motamedi, Kariminia, 2015; Agha, 2015).

#### 3.1 Public Perception and Mosques' Ornamentations

Mazumdar and Mazumdar (2004) defined places as a physical location shaped by the connection of people with their environments, activities and purposes. The buildings have varied functions. There are places that the public relates to for religious or sacred ceremonies. They are constructed to cultivate human philosophies, beliefs and also improve human spirituality. Consequently, sacred architecture plays a role as the setting where one feels closer to God. Synagogue, churches, mosques and temples are samples of sacred buildings built for worship of God or other religious activities. These types of building should be magnificent for people and attract them to enter. So, decorations in the inside and outside of

prayer rooms can be considered as a must (Saberi, *et.al*, 2015). Hence, calligraphers as designers of mosques decorations should appreciate and respect users' desires and consideration.

### **3.2 Ability of Reading and Understanding of Arabic Scripts in Malaysia**

In Malaysia, the first language is *Bahasa Malaya* which is the official language of the country. Although the Malaysian Indian and Chinese use English as the second language in the country, Arabic language as the language of Islam is appreciated by the Muslims who mostly come from Malay background. Since the Muslim Holy book "Al-Qur'an" was revealed in Arabic language, there is no other way to improve Islamic knowledge except through enhancing the ability of reading and understanding the Arabic language. Therefore, the significance of Arabic language is undeniable, especially when the majority of religious scripts are written in this language. The Malaysian Muslims therefore, need to learn the language to expand their understanding of Islam (Kostof, 1995). Nevertheless, for majority of the public who want to appreciate the Quran, a basic ability of Arabic reading and understanding seems sufficient.

## **4. Critical Characteristic of Ornamental Inscriptions in Mosques**

Generally, there is an enthusiasm in people to be involved in their built environment. Hence, questioning their preferences and priorities would assist designers to build the user-preferred surroundings. The issue arises for sacred buildings since the users prefer to enter to a homogeneous building rather than to a place which has no connection to their religious beliefs.

### **4.1 The Aesthetic Value**

People's perceptions including visual and conceptual abilities may affect their environmental assessments (Ghomeshi & Jusan, 2013). Ghomeshi and his colleague claimed that nowadays, the aesthetical values in sacred building decorations are an independent field of research and it should be divided from other aspects of architecture. They also added that beauty and preference has a direct relationship in architecture. It means that the time for simple and unadorned structures is past and the public currently appreciate buildings with aesthetical value and decorations. Aesthetical value in sacred building embellishments focuses on appreciation of the religion and how it stimulates our spiritual feelings. The statement is supported by Raeisian (Raeisian, 2013a) as he stated that architectural aesthetics obtains meaning through the intersection between physical qualities of mankind environment as the objective mark and culture and religion as the subjective targets. The mosques are not excluded from this rule. Mosques are obligated to have ornamentations related to the Muslims religious needs and meet the aesthetic requirements of the public. Calligraphy woodcarving ornamentation can fulfil all Malaysian Muslims aesthetic requirements in mosques.

### **4.2 The Importance of Function**

There are two common opinions on the function of calligraphic woodcarving decorations among Islamic scholars and users of mosques. The first viewpoint is that the calligraphic woodcarving decorations in mosques are implemented to adorn the sacred structure. They claim that calligraphic woodcarving ornamentation in sacred places carry there is no any other meaning except for beautification values (Ahn, 2007). Conversely, another point of view asserts that calligraphic decorations are applied to convey significant religious messages to the users (Osborn, 2009). This group of scholars believe that the inscriptions are sacred and must be respected more than other types of decorative elements as they display

the holy words of God or His messengers. These two different lookouts will be investigated in the current research paper.

### 4.3 The Location of Inscriptions

In Islamic point of view, a mosque is defined as a place where the congregations can perform their prayers and religious activities (Raeisian, 2013b). He also stated that, as the Muslim began to construct the mosques and when the number of mosques increased, the mosque architectural interior elements started to develop. The Muslims began to develop their sacred prostration place. From the prophet's mosque, which had a very simple architecture, today's mosques are considered as real monuments. Over time, architects attached several new components to mosques including arcades and porticos, courtyards, a *Mihrab* wall, the niche in the *Qiblah* wall, the fountains for ritual ablution and the minarets that function as a tower to call Muslims for prayers five times a day (Osborn, 2009). However, this study selects five locations of mosques' interior that designers prefer as locations to display decorative inscriptions. Windows, entrances, side walls, *Mimbar* (pulpit) and *Mihrab* wall can be considered as the most common location for calligraphic woodcarving ornamentations.

## 5. Methodology

In social science studies, statistical analysis functions like the core of the research. Since finding scientific theories that are identical to reality in the social areas is a challenge, obtaining adequate participants and conducting suitable statistical analysis may train researchers to generate valid and reliable theories. Quantitative method can be regarded as a valid approach for collecting data in social science studies. The questionnaire survey is approved by many scholars as a suitable technique to obtain required information from an extensive population particularly when the subject of public perception is mentioned (Bryman, 2012). In the current study, feedbacks from users of mosques as respondents of the questionnaire survey are collected. The participants are residence of two regions of Peninsular Malaysia, the Southwest and East Coast. The generation of questionnaire survey's content was based on the objective of the study and reviewing the existent literatures. A pilot study was carried out before conducting the actual survey. A technique of test-retest of questionnaire was also done to approve the validity and reliability. It must be noted that the questionnaire was translated to *Bahasa Malaysia* as the official Malaysian language to be clear and understandable for all respondents of different ages.

The questionnaires were distributed in eight mosques. The researcher selected five mosques in Southwest of Malaysia included *Masjid Kampung Kling* and *Masjid Al Azim* in Melaka; *Masjid Abu Bakar Sediq* and *Masjid Sultan Alauddin* in Selangor and *Masjid Negeri Sembilan* in Seremban, *Negeri Sembilan*. While three mosques also selected from East Coast region of Malaysia namely, *Masjid Abidin*, *Masjid al-Jamhuriyah* and *Masjid Kampung Tasek* located in Terengganu. The mentioned mosques were chosen due to the existence of woodcarving calligraphic ornamentations in the mosques.

The sample size of population was selected based on Creswell (2009). To have more accurate results, researchers always wish to test the hypotheses and interpret the outcomes from a wide sample size rather than a minor group of respondents. As Creswell claimed, a sample size of 350 to 400 is acceptable to attain a confidence level of 95%, along with a confidence interval of [ $p = 0.05$ ], for a population between 1000 to 1500 people (Creswell, 2009). Consequently, 420 questionnaires were randomly distributed among the worshipers in selected mosques. 408 questionnaires out of 420 questionnaires were returned back and completed. The answers were coded and input into SPSS (version 19) software for data analysis process.

The survey was conducted in May 2013 and ended in July 2013. All the mentioned mosques have a similar trait, which is the application of calligraphic woodcarving ornamentations inside their prayer halls. The decorative inscriptions are mostly displayed on the façade of walls, above windows and entrances, *mimbar* and *mihrab* walls.

### 5.1 Statistical Approach and Variables Comparison

As mentioned, two distinguished zones of Peninsular Malaysia were selected. Mann-Whitney test was conducted to compare the opinions of participants who live in these two areas of Malaysia. The items were measured to find out the potential differences between the respondents' opinion in the mentioned two zones. The Mann-Whitney U-Test is a statistical analysis, which can be run by comparing the means. The dependent variables in the current study must be split into two separate variables embracing East Coast (N=204) and Southwest (N=204) of Peninsular Malaysia. The test compared the mean of inquired items as independent variables into two split zones of Malaysia as dependent variables. Unlike the T-test, the Mann-Whitney U-test is a non-parametric test since the test does not assume any properties respecting the distribution of the variables which is known as normality in the analysis or using the ordinal scale. In other words, the non-parametric test can be used when the assumptions of a parametric test are violated.

## 6. Results

### 6.1 The Ability of Reading and Understanding Quranic Verses

Mann Whitney U test was conducted to gauge the respondents' ability to read and understand the Arabic words and *Quranic* verses. Table 1 shows that the mean ranks of participants who live in East Coast of Peninsular Malaysia were higher than Southwest respondents in terms of both evaluated variables. The U-Test revealed that there was no significant difference between two areas about the reading Arabic words and it means that participants in both selected areas were able to read Arabic word in almost similar level. However, the level of understanding the meaning of *Quranic* verses among respondents who live in East Coast was significantly higher than respondents who were in Southwest of Malaysia (Mann-Whitney U = 18248, N1 = N2 = 204, P=0.02). Figure 3 displays the mean ranks of two assessed variables as a line chart to make the differences easier to understand.

**Table 1** U-test regarding to ability of reading and understanding Arabic inscriptions

U-Test	Reading Arabic words	Understanding verses
Southwest	202.01	191.95
East Coast	206.99	217.05
Mean Difference	-4.98	-25.1
Mann-Whitney U	20301	18248
Asymp. Sig. (2-tailed)	0.652	0.02*

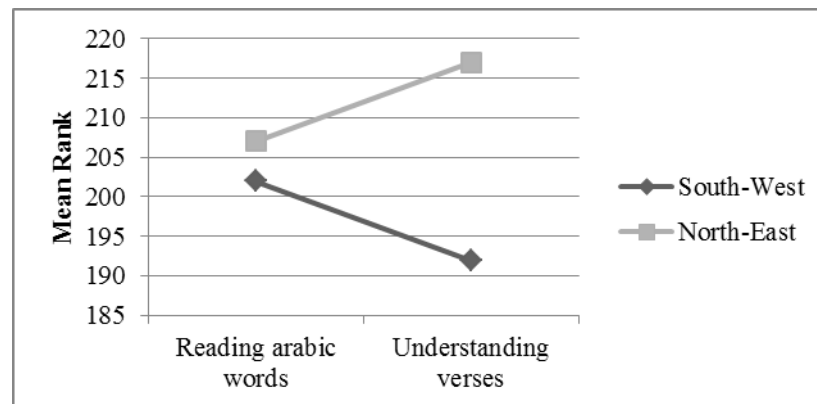


Fig. 3 Comparison about the ability of reading and understanding Arabic language between respondents of Southwest and East Coast

## 6.2 The Function of Calligraphic Woodcarving in Mosques

The U-test revealed that, although there were some differences between the perception of respondents in Southwest and East Coast of Peninsular Malaysia regarding to their opinions on the function of calligraphy wood carving in mosques, Table 2 shows that the significant level was only found in the idea that calligraphy wood carvings function as a way to remind Muslims to pray to Allah (Mann–Whitney U = 18459, N1 = N2 = 204,  $P < 0.028$ ). The mean ranks shown in Table 2 prove that the users of mosques who live in East Coast of Peninsular Malaysia think about the function of calligraphy woodcarving in opposite way when compared with the respondents in the Southwest.

**Table 2** Respondents' perceptions regarding the function of inscription in mosques

U-Test	Decorative element	To praise Allah
Southwest	214.34	192.99
East Coast	194.66	216.01
Mean Difference	19.68	-23.02
Mann-Whitney U	18801	18459
Asymp. Sig. (2-tailed)	0.079	0.028*

The line chart as shown in Figure 4 demonstrates the differences of two groups of respondents, who were inquired about the function of Arabic inscriptions in the mosque. In terms of the perspective that calligraphy woodcarving can only be the decorative elements in mosques, the Southwest respondents showed the higher mean rank (MR=214.34) than users in East Coast (MR=194.66) of Peninsular Malaysia. Even though there was a difference between groups of respondents, the difference was not in the level of being significant ( $P > 0.05$ ).



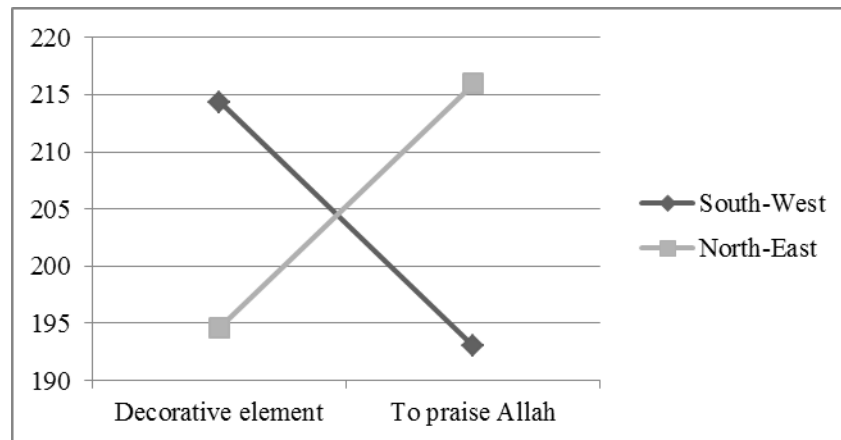


Fig. 4 Comparison about the perception of function between respondents of Southwest and East Coast

### 6.3 The Location

Among the five selected locations of calligraphy woodcarving ornamentation in Malaysian mosques, only windows showed a significant difference between two groups of study (Mann–Whitney  $U = 18316.5$ ,  $N_1 = N_2 = 204$ ,  $P < 0.026$ ). The mean rank showed that users of Southwest had a higher opinion than the East Coast respondents about the windows as an ideal place for calligraphy wood carving.

**Table 3** Respondents' perceptions regarding the location of inscription in mosques

U-Test	Entrance	Windows	Side walls	<i>Mimbar</i>	<i>Mihrab</i> wall
Southwest	204.51	216.71	206.8	200.14	198.46
East Coast	204.49	192.29	202.2	208.86	210.54
Mean Difference	0.02	24.42	4.6	-8.72	-12.08
Mann-Whitney U	20805	18316.5	20338	19919.5	19576
Asymp. Sig. (2-tailed)	0.998	0.026*	0.671	0.397	0.253

Interestingly, the test did not find any significant differences between the two evaluated groups on their perception of other common inscription places in the mosques' interior except for windows. Figure 5 displays the differences as a line chart. As it can be seen, the perception of respondents in Southwest and East Coast of peninsular Malaysia were almost similar.

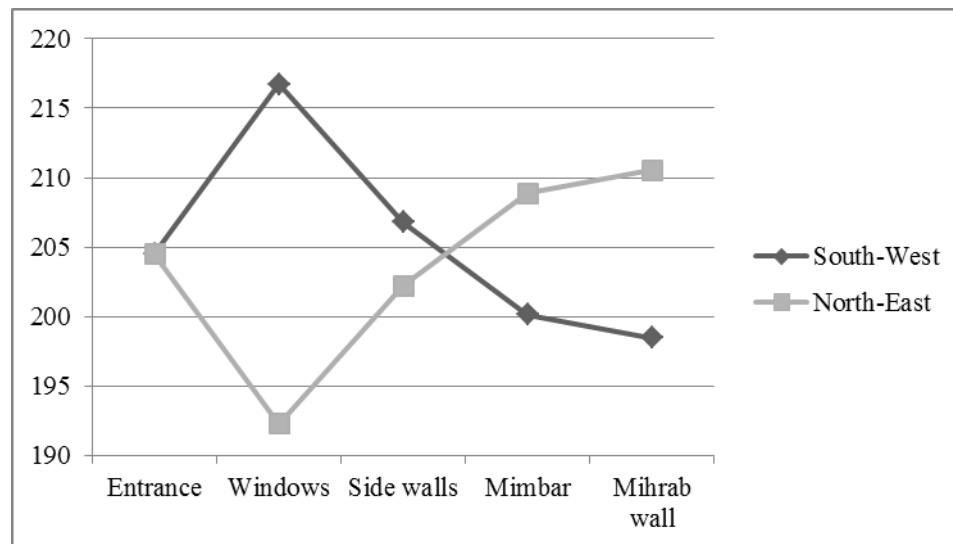


Fig. 5 Comparison about the most suitable location of decorative inscription in mosques between respondents of Southwest and East Coast

#### 6.4 Readability of Scripts

The readability level of scripts was evaluated between the respondents of Southwest and East Coast of Peninsular Malaysia through Mann Whitney U-test. Table 4 presents the results of the U-test. The respondents of two groups had similar opinion about *Thuluth* and *Diwani* scripts as their Asymp. Sig were greater than 0.05. The mean ranks revealed that users of East Coast mosques found the *Thuluth* more readable than the people in Southwest. Meanwhile, the feedback about the *Diwani* script was contrary.

**Table 4** Respondents' perceptions regarding the readability of inscription in mosques

U-Test	<i>Thuluth</i>	<i>Kufi</i>	<i>Naskh</i>	<i>Nastaliq</i>	<i>Diwani</i>
Southwest	200.38	231	189.97	185.31	214.75
East Coast	208.62	178	219.03	223.69	194.25
Mean Difference	-8.24	53	-29.06	-38.38	20.5
Mann-Whitney U	19968	15402	17843	16892.5	18718
Asymp. Sig. (2-tailed)	0.467	0.0**	0.006*	0.001*	0.063

Nonetheless, the U-Test proved that there were significant differences between respondents in Southwest and East Coast of Peninsular Malaysia about the readability of some scripts including *Kufi* (Mann-Whitney U = 15402, N1 = N2 = 204, P<0.00), *Naskh* (Mann-Whitney U = 17843, N1 = N2 = 204, P<0.006) and *Nastaliq* (Mann-Whitney U = 16892.5, N1 = N2 = 204, P<0.001). Although the respondents of Southwest were more comfortable with the legibility of *Kufi* script rather than East Coast participants, the mean ranks revealed that other two scripts showed opposite answers. Users who live in East Coast were more able than respondents of Southwest in reading *Naskh* and *Nastaliq* scripts. Figure 6 displays the differences between two groups of study.

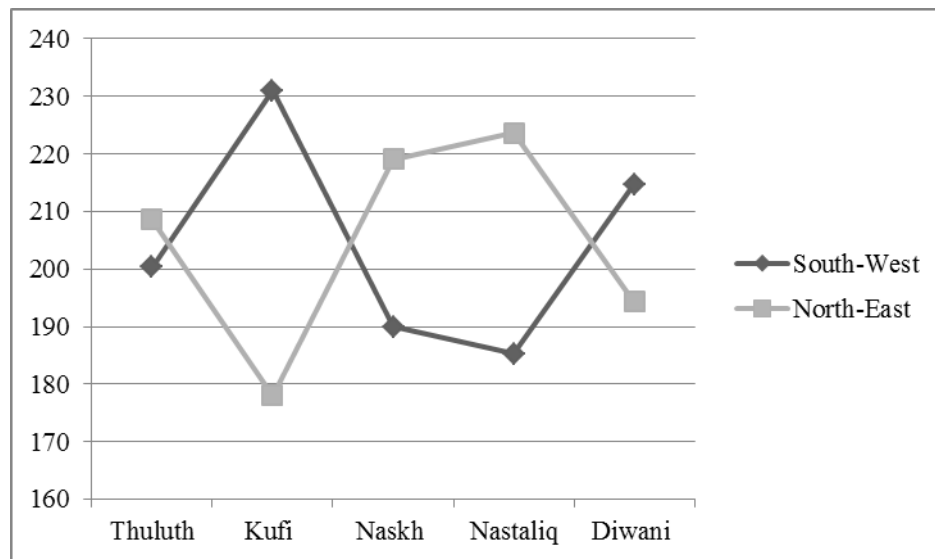


Fig. 6 Comparison about the readability of decorative inscription in mosques between respondents of Southwest and East Coast

### 6.5 Beauty of Scripts

A Mann-Whitney U-test was conducted to answer the research objective that purposed to compare the two groups of participants. In terms of the beauty of scripts, significant differences were found in *Thuluth* (Mann-Whitney U = 18183, N1 = N2 = 204,  $P < 0.018$ ), *Naskh* (Mann-Whitney U = 16728, N1 = N2 = 204,  $P < 0.00$ ) and *Diwani* (Mann-Whitney U = 17018, N1 = N2 = 204,  $P < 0.001$ ) between participants from Southwest and East Coast of Peninsular Malaysia. Surprisingly, the mean ranks in Table 5 show that respondents from Southwest rated higher points than East Coast participants in terms of the beauty of mentioned scripts.

**Table 5** Respondents' perceptions regarding the beauty of inscription in mosques

U-Test	<i>Thuluth</i>	<i>Kufi</i>	<i>Naskh</i>	<i>Nastaliq</i>	<i>Diwani</i>
Southwest	217.37	209.03	224.5	202.55	223.08
East Coast	191.63	199.97	184.5	206.45	185.92
Mean Difference	25.74	9.06	40	-3.9	37.16
Mann-Whitney U	18183	19884.5	16728	20409.5	17018
Asymp. Sig. (2-tailed)	0.018*	0.393	0.0**	0.726	0.001*

Despite the differences between two evaluated groups about the beauty of *Kufi* and *Nastaliq* scripts, the U-Test revealed that the differences were not significant enough as the p-value were recorded higher than 0.05. Figure 7 demonstrates that the *Nastaliq* was the only script which participants in East Coast considered as more beautiful than Southwest respondents.

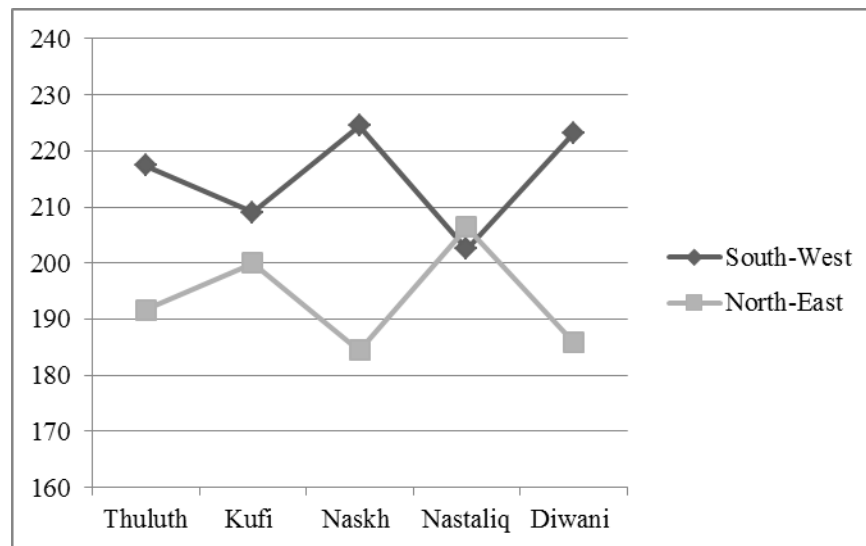


Fig. 7 Comparison about the beauty of ornamental inscription in mosques between respondents of Southwest and East Coast

### 6.6 Preference of Scripts

The results of the U-test in Table 6 indicated that the perceptions of Southwest and East Coast respondents toward the preference of observing *Naskh* (Mann–Whitney U = 14284, N1 = N2 = 204,  $P < 0.018$ ) and *Nastaliq* (Mann–Whitney U = 14100, N1 = N2 = 204,  $P < 0.00$ ) significantly differed at 0.001 levels. In other words, the Southwest respondents perceived the *Naskh* script to be significantly more attractive when compared with East Coast people, while it was opposite in *Nastaliq*. However, the existence of statistically significant difference between Southwest and East Coast respondents' perceptions could not be supported for the reminder scripts such as *Thuluth*, *Kufi* and *Diwani* (p-value > 0.05).

**Table 6** Respondents' perceptions regarding the preference of inscription in mosques

U-Test	<i>Thuluth</i>	<i>Kufi</i>	<i>Naskh</i>	<i>Nastaliq</i>	<i>Diwani</i>
Southwest	197.3	202.03	236.48	171.62	207.72
East Coast	211.7	206.97	172.52	237.38	201.28
Mean Difference	-14.4	-4.94	63.96	-65.76	6.44
Mann-Whitney U	19340	20304.5	14284	14100	20151.5
Asymp. Sig. (2-tailed)	0.189	0.653	0.0**	0.0**	0.565

Figure 8 gives a good illustration about the mean differences of the variables between Southwest and East Coast respondents' perceptions. The mean rank stated that participants in East Coast were more eager than Southwest mosque's users to see *Thuluth*, *Kufi* and *Naskh* scripts as the calligraphy woodcarving ornamentation scripts. Nonetheless, the condition for *Nastaliq* and *Diwani* was contrary as the mean rank of Southwest respondents was higher than participants in East Coast of peninsular Malaysia.

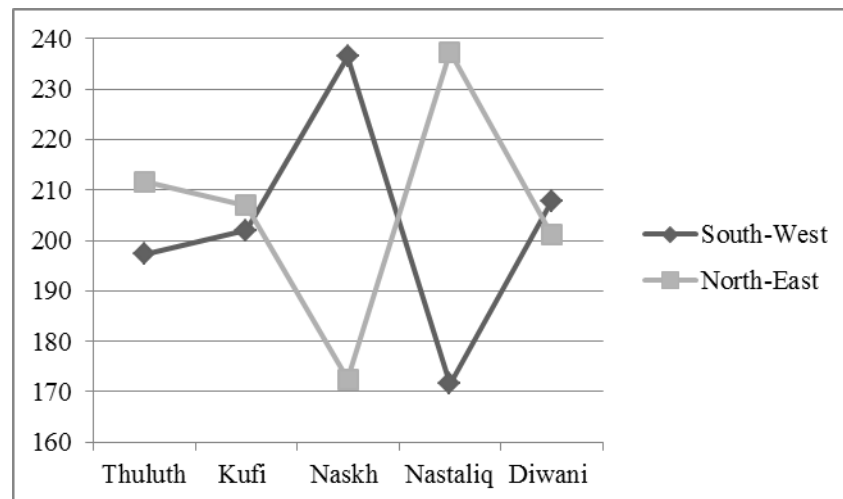


Fig. 8 Comparison about the preference of ornamental inscription in mosques between respondents of Southwest and East Coast

## 7 Discussion

The current paper focuses on the evaluation of mosques' users about the calligraphic woodcarving ornamentation in the eight well-known mosques of Peninsular Malaysia and examined several items including the ability to read and understand Arabic inscriptions, the function of calligraphic ornamentation inside the prayer hall of the mosques, the most suitable location, the level of legibility, beauty, and finally the preference of ornamental inscriptions.

The current study is carried out through exploratory quantitative approach as there is a lack of past studies on calligraphic wood carving decorations in mosques and its relationship to public perception. The outcome of study proved the new contribution of the research, whilst the results are also useful for the interior designers and architectures to design more appropriate ornamentations in different regions. Moreover, the findings are valuable for mosque users who frequently use mosques for Friday-daily prayer and other religious activities. Woodcarving is regarded as one of the Malaysian Heritages, and the users appreciated the application of this artefact in Malaysian mosques. The calligraphic woodcarving ornamentations cover both Islamic and cultural values if they are applied in the suitable location and the needs of users are met.

It is assumed that public has the right to observe their opinions about the decoration of mosques as the one who use the building daily. Although designers would also find out about the preferences of the users, the viewpoints of people in different regions are varied. Therefore, the current research settles the feedbacks of the public on the calligraphic woodcarving ornamentations in terms of the function, suitable location, legibility, aesthetic and preference of decorative inscriptions.

Shahedi et al. (2012) noted that the public perception is observed to be more meaningful and measurable through their knowledge about ornamental architectural elements. Additionally, there are several other factors such as religion, culture and moral interests connected to the public perception despite the fact that the participants answered differently to the interview questions that proved the multiplicity of viewpoints between two measured regions. Yet, variety in opinions, different environment and specialized knowledge between the people in Southwest and East Coast of Malaysia about calligraphic ornamentations were the main reasons of differences in opinions.

The results of U-test about the ability to read and understand Arabic language were surprising. The people who live in East Coast of Peninsular Malaysia are more able to read and comprehend Arabic than respondents in the Southwest. Although the ability of reading the Arabic scripts in both groups is almost in a same level, the East Coast people are better with a wide difference in understanding Arabic than people from Southwest. The probable reason could be the unity of Malay people in the North East states such as Terengganu. The multi-cultural phenomenon in Southwest regions of Malaysia affects encourage of Malay locals in learning Arabic.

According to statistical results, although the majority of respondents claimed that calligraphy ornamentation comprises both function in mosques, the respondents' opinions in North East and Southwest of Peninsular Malaysia were different. The people in Southwest observed woodcarving inscriptions more as a decorative element. On the contrary, respondents of East Coast believed that calligraphic woodcarving ornamentations as a way to remind them of Allah and to pray to Allah. It seems that there is a direct relationship between the ability of comprehending Arabic language and the determination of its functions. Since people in Southwest could not understand Arabic language properly, consequently, they perceived it as decorative element.

Further, it proves that religious function was taken into consideration rather than the aesthetic value. Their Islamic interest and background influenced the respondents' opinions. It also can be noted that the interior ambience of mosques effected the respondents' perceptions about the function of calligraphic woodcarving ornamentations although they are mainly applied as embellishments in the prayer hall rather than to be read and used as a tool to connect the Divinity and his worshipers.

The results of inferential analysis also displayed that North East and Southwest respondents looked at the calligraphic woodcarving ornamentations as decorative elements in a similar degree of interest. However, the differences of North East and Southwest participants about the decorative inscriptions as a way to praise Allah were significant. Perhaps, the disparity is developed from the multi-cultural society that Southwest is encountered. While the religious schools (*sekolah agama*) in the East Coast play an important role in increasing peoples' Islamic knowledge.

The suitability of location for calligraphic woodcarving ornamentations was assessed from two groups of study. According to the results of questionnaire survey, the window is a debated place for displaying decorative inscriptions since there were differences between the opinions of respondents in Southwest and East Coast of Malaysia. On the hand, the entrance of prayer hall had the minimum diversity of opinion. Although, the respondents from the East Coast preferred *mihrab* wall as their first choice for ornamental inscriptions, the respondents from the Southwest selected windows of mosques as their first option.

The *Thuluth* script was the only writing style found in the ornamentation elements of all eight observed mosques either in East Coast or Southwest of Peninsula Malaysia. When the respondents are divided into East Coast and Southwest groups, the results are more interesting. It is revealed that the legibility and preference of *Thuluth* are almost similar for both groups of study. Meanwhile, in terms of aesthetic, Southwest respondents observed this writing style to be more beautiful than respondents from East Coast. It can be noted that *Thuluth* is a very common scripts among the decorative scripts in Malaysia, thus it is logical to see similar level of popularity throughout Malaysia. It seems possible that these results are due to the popularity of *Thuluth* as the main decorative script in Malaysian mosques. However, the maximum level of readability was found in *Naskh* script through the opinion of East Coast participants. Conversely, the respondents from Southwest observed *Kufi* as the most readable decorative scripts.

Furthermore, this study also compared the assessments of East Coast and Southwest respondents about the aesthetic value of calligraphic ornamentations. Interestingly, the results proved that the religious viewpoints of respondents in East Coast have influence on their concerns about mosque ornamentations as well. Although the East Coast respondents showed higher level of interest and were more pleased by

*Nastaliq* scripts than people in Southwest, they also thought that the aesthetic value of calligraphic woodcarving decoration is a logical reason why it must be a requirement for the prayer hall of mosques. The comparison indicated that respondents in the East Coast became more interested to read and understand the inscriptions more than respondents in Southwest when they found them beautiful.

*Naskh* writing style was the second most used script observed in the selected mosques even though it is mostly used for writing of books. However, it observed that this style was used in three mosques out of eight. The high score of readability, average score of aesthetic and low score of desirability of *Naskh* script showed that despite the appropriateness of legibility, mosque users did not prefer to observe it in mosques as a decorative inscription. Moreover, it was found that respondents from East Coast were more enthusiastic in *Naskh* writing style than Southwest respondents. The probable reason could be the easiness of readability as *Naskh* is used in writing the religious books. The final outcome expresses that *Naskh* is not a proper writing style for decorative woodcarving inscriptions in mosque, despite it being the most relevant for writing the Quran.

## 8 Conclusion

The current paper answers the connection between users' perception and calligraphic woodcarving ornamentations in mosques. The two important regions of Peninsula Malaysia were investigated and the results were interesting. This study evaluated a subjective skill which is ability of reading and understanding Arabic script and the objective items such as the function of calligraphy in the prayer hall of mosques, the most appropriate location of decorative inscriptions, the aesthetical and legibility aspects, the preferred writing styles. The analyses are revealed the knowledge and preference of prayers regards to their personal evaluation.

It can be concluded that the sensations of humans, particularly visual determination, may affect the environmental perception and evaluation. They stated that aesthetical standards in sacred ornamentations are nowadays an independent field of study and it must be segregated from other parts of architectural aspects. Aesthetical standards in architectural ornamentations focus on the appreciation of the environment and how it inspirations our thoughts in a satisfying way. Artistic inventions derive from the mutual relationship between people's capability and the factors such as culture and religion.

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