

**Doctoral Thesis**

**A Methodological Construction Of Analysis On Mak Yong's  
Mengadap Rebab Dance To Address The Discontinuance Of  
Data Using A Mixed – Method Approach**

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I hope that the study will benefit those who seek to find the answer as I did.  
Strive forward.  
Don't be afraid.

*“Selamat malam yang di bawah jejantas,  
yang di tilam empuk,  
yang ber-aircond atau kipas lapuk.  
Dalam mimpi kita dah lama menang.”*

‘Bla’ by Mohd Jayzuan in Anekdote Rabak (Published by Rabak-Lit, Ipoh, 2013)

## ABSTRACT

Mak Yong, a traditional Malay dance theatre is regarded as one of the intangible cultural heritage by UNESCO since 2005. It combines ritual, music, dance and improvised acting to provide entertainment to its crowd since days of old. Although no documentation was found on its origin and historical narrative due to its oral tradition, Mak Yong was recorded and studied at least one hundred years old. However, the different periods of its study since the early twentieth century has led to one of the problematic issues that have yet to be criticized by its scholars, which is the discontinuance of data. There seems to be a different description of what Mak Yong is through its one hundred years of study. In addition, during the fieldwork in Southern Thailand and throughout this study, fewer people could connect the early recorded form of Mak Yong early in the twentieth century with its current form. The situation calls for a different approach than what was done in the past for the Mak Yong study. The limitation of the ethnographic study on Mak Yong was unable to address this issue of discontinuance or track any possible changes that happened in the period before the study. Due to this issue, we decided to use pragmatism as the philosophical foundation of this study as it caters to inquiry-oriented study. In addition, pragmatism philosophy allows applying a mixed-method approach to answer its inquiries, therefore overcoming the issue of limitation in an ethnographic study. We used the cultural evolution concept to connect these data with the supplementary understanding of the connection between creativity, social action, tradition and environment through George Herbert Mead's social behaviourism and Hans Joas' Creativity in Action theory. Using motion capture technology, we will understand the connection between environment, social culture and choreography in Mak Yong's cultural evolution. In short, we have expanded the objective of this study into five main concerns, which are given below:

1. To understand the physical and dramatic movements of Mak Yong's Mengadap Rebab dance through its movement pattern data obtained using motion capture.
2. To interpret the data and connect to their cultural representation from the bodily expression given in the current and previous ethnographic studies.

3. To examine the connection between the use of accessories and costumes in the dance choreography of Mengadap Rebab.
4. To connect all past ethnographic data using motion capture data and cultural evolution theory.
5. To examine the viability of using motion capture in the future studies of traditional performing arts in Malaysia.

However, to test the universality of this approach, we will also use different traditional performing art with no historical connection to Mak Yong as a comparison. If choreography in both performing arts corresponds to the background information on their environment, we can accept the connection between environment and other background information towards the dance choreography. For this study, we will be using Japanese Noh theatre to compare as they do not have a historical connection based on our literary review. We used Noh's Hagaromo Shimai as the comparative subject to Mak Yong's Mengadap Rebab. After the preliminary fieldwork, we decided to imitate the acquisition of dance knowledge by each dance's community member to provide valid comparable motion capture data. Using MoCap MATLAB Toolbox created by Berger and Toiviainen in 2013, we have chosen three elements for our studies. These elements are cumulative distance by toe markers, standard deviation and velocity graph on several important markers. The cumulative distance by toe markers on both dances shows the corresponding connection between the distance travelled by toe markers with the performance space. The high value of cumulative distance in Noh's Hagaromo Shimai shows how it corresponds to the big performance space provided in Noh theatre compared to the small one in Mak Yong. The standard deviation in Mengadap Rebab and Hagaromo Shimai shows both Mak Yong and Noh have less preference in vertical movement of the feet in their choreography. Finally, the velocity graph shows the important part of the body utilized for the dance choreography. In Mak Yong, the hands are the most important element in the dance, which corresponds to the accessories worn by the performers. Meanwhile, the feet in Noh becomes an important tool in expressing the dramatic choreography. Therefore a proper technique and socks need to be used to execute it as intended. From this experiment, we had established the universality of our hypothesis for the connection between the environment and dance choreography. It also implies that we can connect the past and present data on the Mak Yong dance. We understand that both past and

present Mak Yong shares similarity as they both regard the hand as the attractive element of the performance. While in the past, they utilized *Canggih* or fake fingernails for their performance, particularly in Southern Thailand, today, Mak Yong in Kelantan and Kuala Lumpur use bangles to enhance the aesthetic of the performance. The *Canggih* is also the element that connects the Kelantan Mak Yong to its past in Southern Thailand and other forms of Mak Yong in Southeast Asia, particularly in Indonesia's Sumatran and Riau Islands.

During our fieldwork, we found that the Mak Yong community in Raman, Southern Thailand exhibits Lamarckian inheritance cultural evolution with a guided variation. Coined by Alex Mesoudi (2011: 43), it can be understood that the inherited traits were passed after changes in the lifetime of their predecessors. Meanwhile, guided variation is the characteristic of a process that causes a change in cultural variation over time. It can be defined as a change made by individuals on the information they received due to their own cognitive biases. Through interviews we made during our fieldwork, there is a tendency by the community members to modify their approach towards the tradition, and this we believe will create cultural variation over time. The same examples happen in Mak Yong's well-known personalities, such as Khatijah Awang. She, too, made improvements and adjustments to the Mak Yong tradition to keep it relevant to the contemporary audience in Kuala Lumpur. This information, together with historical documentation on the banning of Mak Yong in the nineteenth century and during the 1990s, we have a reason to believe that this caused the distinct variation between Mak Yong in Kelantan, Sumatran and Riau islands. In the case of Sumatran and Riau Islands, it was exported out of the Malay Peninsular more than one hundred years ago, which is why their style is akin to the one recorded by Skeat in early 1900. Using the approach of Mead and Joas, we could understand how these processes occur using available information. The changes in Kelantan and Southern Thailand may cause by the need of the community to protect the tradition through the 'I' in the individual's self. As in the example of Khatijah Awang, changes are much easier to occur in the community where the 'Me' within the community is not as strong. Through this understanding, we can understand how she thrived in Kuala Lumpur as the community was not familiar with Mak Yong tradition compared to Pattani – Kelantan. However, Han Joas' approach enlightens us on why these changes could have resulted in the discontinuance of data. In one of his tacit



assumptions, he highlights that situationality is an important element in discussing the creativity of social action's. Due to creativity in action that does not necessarily fit within the means-end schema, human social action often finds themselves reflecting and changing its course over time according to their current need. In the case of Mak Yong, due to its roots in oral tradition, there is no way of tracking progress on the changes made in the tradition. Over time, each generation influences the tradition and consequently cause cultural variations to occur.

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## **CHAPTER 1**

### **BUKA**

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### **UNDERSTANDING THE CONTEXT OF PATTANI – KELANTAN**

In our attempt to understand the realm of performing arts, the basis in order to construct the paradigm of our work is looking into its socially constructed symbolic meaning. Either through the emic or etic approach, the ethnographic study attempts to record descriptively the human experience of understanding the social construct or explaining it in the native perspective of the subject. As technology advances in the new millennium, we saw academic interest in digital humanities research fieldwork covering performing arts. However, despite the advancement of digital data research in the performing arts, such as those done by Golshani et al. (2004) and Aristidou et al. (2019), the attempt on seeing performing arts as part of humanity's cultural evolutionary progress is not as significant especially with the lack of discussion on Mak Yong within the context of cultural evolution. Perhaps discussing theatre or performing arts in the cultural evolution paradigm has been tiresome. A more recent approach, such as those of Schechner, prefers to look into the relations and the intermixing of different activities into another form of performance (Schechner 2003: 7). Thus, the discussion of performing arts further deviated into different paradigms, away from the positivist nuance. At the same time, the advance in technological tools for research in human movement analysis made it possible to observe human biological movements much closer.

As a result, although scholars such as Aristidou et al. (2019) suggested the connection between various performing arts in different socio-geographical contexts, they did not attempt to extend the discussion. Thus, it leaves us with the opportunity to continue and explore in the future. Today, our dilemma is the disconnection between social contextual analysis on performing arts and the positivist perspective of digital humanities research. This dilemma is to be expected as both epistemological perspectives are opposing in principle to one another. However, as the discourses between both paradigms of academic discourse progress over the years, it is inevitable to see the merge or inter-disciplinary approach between the two to extend the discussion for a better understanding of the subject matter. This research attempts to combine analysis tools from the qualitative and quantitative research approach to understand the dramatic movement of Mak Yong's opening dance Mengadap Rebab within cultural evolution. This approach will examine the relationship between several essential aspects of Mak Yong dance social construct and Mengadap Rebab's choreography. We will visit these concepts used as a theoretical framework in subsequent sections. Still, before we can approach the subject, we will need to look into Kelantan-Pattani's social settings for contextual understanding before moving on to past studies on Mak Yong.

## 1.1 Kelantan – Pattani

### *1. 1. 1 The Early Kingdoms – From Funan to Langkasuka*

Before we begin to understand Mak Yong as our subject of interest, we need to look into the social settings and some early descriptions of important kingdoms within proximity to the northeast coast of the Malay Peninsula, namely, Funan, Panpan and Langkasuka. We will explore the political interactions from these kingdoms to construct our early understanding of the ties that would probably affect the culture in the later period, specifically to the subject of our concern; Mak Yong. Finally, we will look into Pattani and Kelantan, where Mak Yong is believed to be originated. We will focus on its history between the sixteenth to the early twentieth century.

Historically, the Southeast Asian region, even before the 11<sup>th</sup> century, was mentioned by several accounts, including the Ramayana epic where it was called *Suvarnadipa*, translated as 'Golden Peninsula' and *Suvarnabhumi* or 'Land of Gold'. The

Roman scholar Claudius Ptolemy through his writings in *Geographia* (165 AD), had also mentioned a place named 'Aurea Chersonesus', translated from Latin as 'Golden Khersonese'. Scholars identified this as lower Burma but later redefined it as the Malay Peninsula (Hall 1968: 15). The Chinese sources had also mentioned Southeast Asia, a port on the island of Sumatra, which was of importance for trading with India. More importantly to our discussion, another record by the Chinese, *Liangshu* or 'Liang History', mentioned the kingdom of Funan, located north of the Malay Peninsula, centred in the Mekong Delta. It is written that it had a Hindu court and possibly been founded in the first century A.D. Other than this, the account had also mentioned other states in the Malay Peninsula using Sanskrit names, thus telling us that Indian influence predates the arrival of the Chinese. The kingdom encompasses modern Cambodia, Laos, Thailand, Vietnam and Myanmar. This is important information for our study as it tells us the early influence on Southeast Asia, particularly within proximity to Mak Yong's geographical origin, the state of Kelantan and Pattani.

Other than Funan, another early maritime kingdom in the region of our concern were Panpan and Langkasuka. Panpan, according to various scholars, including P. Wheatley, deduced that the area of this kingdom is most probably situated on or near the Bay of Bandon, within the east coast of the Malay Peninsula. This polity was mentioned in several accounts between the Southern Song Dynasty (420 – 479) and the Tang Dynasty (618 – 907). Meanwhile, Langkasuka was also recorded between the Sui Dynasty (581 – 618) and Tang Dynasty. Through the Tang Dynasty historical record, it was said to be at its height in the seventh century before declining a century later. This kingdom can be regarded as the predecessor to the kingdom of Pattani, which arose in the next millennium.

Through evidence thus far, Southeast Asia is known to receive cultural influence from India (Coedes 1975: 14). However, no evidence of cultural transmission can be seen between India and Southeast Asia. One theory from Jukka O. Miettinen suggests that the process was possible through the role of Indian Brahmin that frequent to the region (Jukka O. Miettinen, 2008: 61-68). Such cultural transmission is also agreed by Kenneth R. Hall for the case of court administration, although he did not specifically mention performing arts (Kenneth R. Hall, 2011: 51). It begs the question of how this reactionary process resulted in a rich and multi-layered art form of Mak Yong? We will now move



to the history of polities directly related to Mak Yong, Pattani, and Kelantan to construct our understanding of its cultural values' historical and social foundation manifest in this Malay traditional performing arts.

### *1. 1. 2 The Two Polities: Kelantan and Pattani*

The past interactions between the Chinese and the early kingdoms of the northeast of the Malay Peninsula provided us with a context towards further social and political development in the second millennia. We understand how the impact of Indian cultural influence on Southeast Asian social and political structure in the early periods. We will now narrow our discussion focus to the region directly related to Mak Yong, which consists of modern-day Pattani and Kelantan, the two bordering states between Thailand and Malaysia. Our intention in this observation is to understand the historiography context of the region and investigate the social context that had its impact on the local traditions and culture, specifically towards the realm of performing arts. It is safe to say that even within the modern context, the social interactions between the two states are still considerably strong due to the shared history and identity. These shared social values and identities had been agreed upon by A. Malek and Mahmud (A. Malek 2006: 142 and Mahmud 2018: 250 – 251). Due to these interactions, it is natural for communities between the two states to share some aspects of traditions and culture, especially folk traditions such as Mak Yong, where groups practising the art existed in both locations (Yousof 1992: 16).

In terms of historiography on Kelantan and Pattani, several earlier written sources and accounts could be considered. Due to the considerable number of sources, we will investigate them in terms of their descriptions of political and social structure for each state separately and how it could give the contextual understanding that underlies some aspect of cultural traditions in the traditional art. We will also investigate some aspects of social and political interactions between Kelantan and Pattani that impact the cultural traditions.

### 1. 1. 2. 1 History of Pattani

In discussing the history of Pattani, two perspectives can be observed; those came out of the foreign sources outside of Pattani and the other written locally by people within the polity. Recent findings made by Geoff Wade (Wade 2013: 63 - 64) explains a country named Da-ni (大泥) in Chinese sources between the 16<sup>th</sup> and 19<sup>th</sup> centuries. The country could be regarded as Pattani due to the similar consistent descriptions of the political context to other historical documents, such as *Hikayat Patani*. ‘An Account of Translator’s Institute’ or Si Yi Guan Kao (四夷館考) and ‘An Illustrated Compendium’ or Tu Shu Bian (圖書編) written in the late 16<sup>th</sup> century describe the geographical location of Da-ni as a country to the east of Siam. Other accounts such as ‘Account of the Military Defences of the Guangdong/Guangxi Commander’ or Tsang Wu Zong Du Jun Men Zhi (蒼梧總督軍門志) and ‘The Veritable Record of Wan Li Reign’ or Ming Shen Zong Shi Lu (明神宗實錄) gave more than just geographical location. These accounts are also concerned with the pirate activities perpetrated by the infamous pirate Lin Daoqian, who had his base in Pattani. In terms of record on the political context of Pattani, ‘Account of the Eastern and Western Ocean’ or Dong Xi Yang Kao (東西洋考) written in 1617 and Japanese account Tōsen Fusetsugaki (渡船風說書) written between 1674 – 1723 explains the political turmoil, such as the enthronement of a Queen as a ruler in Pattani after the death of a previous king and the long-lasting warfare between Ligor (Nakhon Si Thammarat), Songkhla and Pattani towards the end of the seventeenth century.

European accounts on Pattani also reflect Pattani’s political context, such as the account by Jacob Van Neck in 1602 and Peter Floris on his voyage between 1611 - 1615. Jacob Van Neck’s *Journaal* confirms the plurality of Pattani’s social structure during the height of Pattani as an entrepôt in the seventeenth century, evidently through the rough estimation of the ethnic group in the social network and the primary languages used within Pattani. He also noted the ‘hybridised’ Chinese who dominated the trade and manufactured while having similar numbers as the Pattani Malay (Anthony Reid 2013: 16). The great *orang kaya*, such as Sirinara and Raja Indra Muda, are a few successful examples of ‘Malay of Chinese descent’ given by Van Neck in his account. He also makes some notes on some of the aspects of Pattani on sexual relations and religions. Besides Islam as a belief predominantly embraced by the Malay, the Chinese and the

Siamese religious system was also mentioned. The mosque of the Muslim, the yellow robes of Siamese Theravada monks and the spirit possession of Chinese popular religion are a few discussions made by him. However, another European account written by Peter Floris illuminates other exciting observations on Pattani's social structure. He mentioned the Javanese slave community within Pattani that revolted due to the leader being killed by Datu Besar, one of the *orang kaya* that they served. Another interesting fact shared by Floris were some of the social interactions made with the Queen of Pattani and other Malay elite social classes during that time (W. H. Moreland 1934: 63 & 87). This interaction gave him a chance to observe cultural performance by the Malay of Pattani at that time under the courtesy of the court.

The writings by Floris certainly sparked the debate on Mak Yong's origin theory made by Mubin Sheppard and the refuted argument made by Ghulam-Sarwar Yousof in later years. Even though the speculative theory on Mak Yong's origin is questionable, it is still one of the crucial observations on old Pattani's performing arts culture. The insights on social structure, ethnic relations, religious relations, and trading activity records give us insight into how it could have affected the cultural traditions of the Malay in the region, especially in the realm of performing arts. Material manifestation such as the use of Rebab in Mak Yong and Main Puteri tradition is one example of social interactions within the old Pattani's plurality. The reason is that Rebab is regarded as an instrument connected to the middle-eastern music and traditions (Britannica 2018, Sachs 1940: 242). Within the discussion of Pattani's history, we will later observe how middle eastern influences, particularly those connected with Islam, not only had its impact culturally but also shaped the belief and education system of Pattani towards the pre-modern and the modern era. We will now investigate the old written historical text of Pattani to observe some aspect of social context that can be derived towards the benefit of this research.

In terms of the old written historical text of Pattani, *Tarikh Patani* and *Hikayat Patani* are the most important to build the foundational understanding of Pattani's past. *Tarikh Patani*, believed to be written by a scholar around 1500 AD, was commissioned by the Sultan of Pattani and free of folk myth elements (A. Malek 2006: 19). The old manuscript documented the contextual background of Pattani, such as early Malay culture, the kings' lineage and the coming of Islam which is estimated around 800 A.D. The manuscript was initially written in Arabic by a local scholar named Syeikh Safiuddin al-Abassi before it was translated by his grandson Syeikh Faqih Ali bin Wan. He also expanded the original manuscript with other historical sources written in Javanese and

Sanskrit and oral history and local annals. The manuscript also includes the early Malay kingdom of Langkasuka and Pattani being a continuation of its legacy as part of the narrative. At the same time, it also highlights the plurality of the polity, having traders coming from places such as China, India, Arab and Persia. Inevitably, Islam was then embraced by the people earlier on before it was then accepted by the Sultan of Pattani and the rest of the local court nobles much later, around 1457. While the narrative aims to highlight the legitimacy of the polity through connection with the previous glory of Langkasuka, it also focuses on Islam as the religious principle embraced by the court of Pattani.

*Hikayat Patani*, the other crucial historical text on Pattani, shares some insights on Pattani's history, social structure and culture. The content follows the style of narrative akin to *Tarikh Patani*. It starts from the establishment of the polity, the coming of Islam, the height of its power, relationships with a foreign power and finally, its fall. However, as with other old Malay manuscripts and annals, elements of myth within the narrative are included, such as the story of the establishment of the polity by the first king of Pattani, Raja Phya Tu Naqpa (*ibid.*). The manuscript provides insight through its political narrative of internal and external affairs regarding the social structure. Through this narrative, A. Malek observed the hierarchy of Patani feudalistic social network to be consist of:

1. The king (*Raja* or *Sultan*)
2. The royal family
3. The ministers
4. Ordinary citizens, enslaved people and concubines
5. Traders and immigrant

It is worth noting that the final social hierarchy consists of people from various origins such as the Chinese, Indian, Japanese, Portuguese, English, Spanish, Dutch, French, Arabic-Persian, Siamese, Javanese, and people from Pasai.

Another essential element within the text vital to our study is the Pattani society's cultural and traditional elements. A. Malek stresses its importance in enlightening Malay cultural traditions, such as the performing arts and the Malay music known as *nobat*. The sixth section of this text provided these contexts, including the description of the instruments, the twenty-four *nobat* melodies, how and when it was usually played (*ibid.*,

107-108). In discussing performing arts, *Hikayat Patani* was used as supporting evidence by Mubin Sheppard other than Peter Floris' account, which Ghulam-Sarwar Yousof refuted. However, despite this shortcoming of an argument, he reaffirms that *Hikayat Patani* is still an essential reference to the cultural performances and music of its time (Yousof 2018: 22).

Within Patani's history through *Hikayat Patani*, the role of women ruler is prominently featured with the example of Patani's Inland Dynasty between 1584 – 1688 (A. Malek 2006: 92), ruled by four female rulers, namely Raja Ijau, Raja Biru, Raja Ungu and lastly Raja Kuning before the first Kelantanese Dynasty succeeded it between 1688 – 1729 (*ibid.*). Stefan Amirell observes through *Hikayat Patani* that the women held a prominent role even before Raja Ijau's ascension to the throne (Amirell 2011: 307). In the time of these female rulers, at least the first two, Pattani was at its height, according to A. Malek and Amirell (A. Malek 2006: 122, Teeuw & Wyatt: 13, Amirell 2011: 305). While *Hikayat Patani* reflected this success by including various traders within its narrative, this is also supported by European accounts such as Van Neck and Floris. They commented on the prosperity of the trade during their trip.

Due to the political stability, economic strength, and prosperity during this period, Pattani managed to strengthen its defence despite being under the influence of Siam. They even managed to repel the attack by the Siam in 1634 (A. Malek 2006: 125). The following year, another Siamese expedition was about to begin but was then halted due to the intervention and negotiation by the Sultan of Kedah (Amirell 2011: 316). The previous attack by the Siamese force took its toll on Pattani. After the demise of Raja Ungu and the enthronement of her daughter, Raja Kuning, in 1635, she resumed relations with Siam by continuing the sending of *Bunga Mas* or golden flowers as a tributary. She also visited the Siamese court in 1641 (*ibid.*). The reign of the Inland Dynasty of Pattani ended after she was ousted by the King of Kelantan, Raja Sakti, in 1651 and installed his son, Raja Bahar, as the Sultan of Pattani thus beginning the first Kelantan Dynasty in Pattani. The text of *Hikayat Patani* tells the history of Pattani until the rule of Along Yunus (1728 – 1729) (A. Malek 2006: 80). Due to the turmoil within domestic political struggle and attacks by Burmese, Ayutthaya could not exert as much influence towards Pattani (Ibrahim Syukri 2002: 67). We can observe this through the refusal of Sultan Muhammad I to give aid to Ayutthaya in repelling the Burmese during 1776. After the kingdom was reunified under the new Chakri Dynasty in 1782, the Siamese launched an attack on Pattani in 1786 from Songkhla, subduing Pattani and thus, tributary status

continued. Several failed attempts were made by the Pattani rulers after this, such as Tengku Lamiddin (1789 – 1791) and his successor (1791 – 1810), to achieve independence from Siamese influence. Pattani was then subjected to the divide and conquer tactics by the Siamese and was divided into several districts, namely *Patani, Nong Cik, Jambu, Teluban, Jalor, Reman, and Legeh* (A. Malek 2006: 130). Each of these districts was led by Malay rulers and one Siamese governor. Pattani was then fell into a more significant decline in the nineteenth century. With the signing of the Bangkok Treaty in 1909, the border of influence in the Malay states was solidified, thus further separating Kelantan and Pattani into the modern era. After the independence achieved by the newly formed Federation of Malaya in 1957, Kelantan was included, while Pattani is considered part of southern Thailand.

### 1. 1. 2. 2. *History of Kelantan*

As we have observed in the previous section, the historical narrative between Pattani intertwines with those of Kelantan, particularly in the seventeenth century during the first Kelantan Dynasty in Pattani. Despite having political power struggle between these two polities over the years, the ordinary people share a similar cultural identity and tradition evidently through the existence of performing arts tradition such as Mak Yong, Menora, Main Puteri within both states today. Migration and movements between the two states could be one of the possible reasons why this is possible. A. Malek discusses the migration of the Pattani people during the invasion of the Siamese force on Pattani in the eighteenth century and how it affected the historical narrative of Pattani and Kelantan Malay (A. Malek 2006: 129). Other migration reports and their impacts, such as Yousof and Pudentia, discuss the introduction of performing arts further away from the Pattani and northeast of Malay Peninsula to Sumatra and Riau islands (Yousof 1992: 58 – 59, Pudentia 2010: 4). We will now observe through the past research on Kelantan historical narrative and look specifically at how it is vital in the building blocks of shared cultural values between Pattani and Kelantan.

The early account connected to Kelantan is from a Chinese source, compiled during the Sui Dynasty around the first half of the seventh century (Jacq-Hergoualc'h, 229). It refers to a polity called Chitu located to the south of Langkasuka. It has been

cited by various Chinese encyclopedias and topographical work such as the *Wenxian Tongkao* written by Mao Duanlin in the thirteenth century. Through descriptions by later works, it is hinted that the polity was established only briefly, with its report suggesting the location is somewhere around the valley of Sungai Kelantan (*ibid.*, 230). The *Suishu* also mentions some aspects of the social structure of Chitu where it describes the court and its people during their envoy missions sent in 607 (Andaya & Andaya 1982: 22). During the second millennium, several Chinese accounts recorded some aspects of a place called ‘Ki-lan-tan’, ‘Chi-lan-tan’ or ‘Ji-lan-dan-gang’. During the Song Dynasty, Chau Ju-Kua or Zhao Rukuo (趙汝适) had given some details through *Zhu Fan Zhi* (諸蕃志) or ‘Records of Foreign Nations’ about a polity named ‘Chi-lan-tan’ that was under the influence of San-fo-ts’i (三佛齊) in Palembang (Hirth & Rockhill 1911, 62). Hirth & Rockhill and Wheatley believe that the polity refers to is indeed the modern-day Kelantan (Hirth & Rockhill 1911: 65, Wheatley 1961: 71) where at that time it was under the influence of San-fo-ts’i, a polity concluded by Coedès to be Sri Vijaya which was centred in Palembang of Sumatran Island (Coedès 1975: 184, Jacq-Hergoualc’h 2002: 234). Later during Yuan Dynasty, a Chinese traveller named Wang Dayuan (汪大淵) wrote about a place named ‘Ki-lan-tan’ (吉蘭丹) through his account in *Daoyi Zhilue* (島夷誌略) during his travel to various places from Southeast Asia, South Asia to Africa in 1349 (W. W. Rockhill 1915, 121). He described the people as “ceremonious in their customs” (*ibid.*, 121). He also notes that the trading items include lute (琴阮) and other musical instruments. The great Chinese Ming voyages led by admiral Zheng He listed ‘Chi-lan-tan’ as one of the thirty-seven localities he visited between 1405 to 1430 from Southeast Asia, Middle East to Africa (W. W. Rockhill 1915, 82). It is believed that this map further derives the Kelantan location in a topographical map of the Malay Peninsula in *Wubeishi* (武備志) by Mao Yuanyi, compiled in 1621 (Geoff Wade 2013, 63). The area concerning the upper Malay Peninsula; Kelantan, Langkasuka, Terengganu and Songkhla was mentioned as Ji-lan-dan-gang, Lang-xi-jia, Ding-ji-xia-lu and Sun-gu-na respectively.

While the Chinese accounts had mentioned Kelantan since the first millennium, other literary sources within the Southeast Asian region also shed some light on this polity. The old Javanese eulogy ‘Nagarakretagama’ or ‘Desawarnana’ written for Hayam Wuruk, the king of Majapahit in the fourteenth century, had also mentioned Kelantan in its canto as one of the polities under its influence (Gerini 1905: 495, Mahmud 2017: 10).

Another source came from ‘Sejarah Melayu’ or the ‘Malay Annals’. It tells the story of Sultan Mahmud Syah, the last Sultan of Malacca, who conquers Kelantan and brings back three of Sultan Mansur Shah’s princesses to Melaka. At the same time, he marries one of them (Winstedt 1938: 22, De Josselin de Jong, 1961: 19, Boon Kheng & Haji Ismail 1998: 223, Mahmud 2017: 10).

The fragments of information we have observed so far only provide a small amount of information regarding this polity. Indeed, this difficulty in historiography had been addressed by both Rentse and Nik Mohd Salleh in their studies (Rentse 1934: 44, Nik Mohd Salleh 2018: 103). According to the latter, the writings of Kelantan history had been started at least in the eighteenth century (*ibid.*, 103). Among these sources, the one important in our discussion is ‘Hikayat Seri Kelantan’. This historical text was written around 1914 based on two historical sources, namely ‘Cetera Raja Muda’ and ‘Sejarah Nik Yusuf’ by an unknown compiler. The content of this annal concern the customs and traditions of the royalty, some aspects of the political relationship between Kelantan and Siam through its tributary system of sending ‘Bunga Mas’ and other related ambassadorial activities with the Siamese in Bangkok. There are also a few descriptions regarding the local performing arts within the text. During the reign of Long Yunus between 1765 – 1795, there were Mak Yong, Menora and other sorts of performing arts and games during the circumcision ceremony of his sons (Yousof 2018: 24). There is also another mentioning of Mak Yong performance during the circumcision of Raja Tengku Sulung’s son (*ibid.*). Finally, it also documents the early banning of Mak Yong during the reign of Sultan Ahmad (1886 – 1890) due to its content not adhering to the Islamic teaching (Mohd. Taib Osman 2004: 85 – 86).

The social dynamics between Kelantan and its neighbouring polities such as Terengganu and Pattani are reflected by observing shared traditions and past political interactions. Through the information shared by Mahmud given below is the breakdown of the Kelantan political period concerning its political ties with the neighbouring polities (Mahmud 2017: 11 – 48):

1. The period of unity with the Pattani Sultanate (1502 – 1554)
2. Independence from Pattani influence during the old dynasty (1554 – 1602)
3. The reign of descendants from Pattani’s royalty (1602 – 1619).
4. The period of two governance (1632 – 1649)



5. The establishment of the Kelantan Dynasty in Pattani and ‘The Greater Pattani’ government (1650)
6. The second period of two governance (1670 – 1713)
7. Raja Sakti II’s united governance (1713 – 1717)
8. The third period of two administration (1717 – 1765)
9. Kelantan – Terengganu War (1799 – 1812)
10. Kelantan Civil War (1838 – 1839)
11. Kelantan royal family power struggle (1839 – 1900)
12. Sultan Muhammad IV – The first Kelantan constitutional monarch (1899 – 1920)

Between these significant political periods, there have been constant interactions between the Kelantan sultanate with its neighbouring Pattani, Terengganu and Siam. While its neighbouring Pattani had few events of being subjugated by the Siamese forces, Kelantan seems to benefit from its relations with Siam. We can observe this through the narration written by Mahmud (Mahmud 2017: 39) and A. Malek (A. Malek 2006: 141). Comparing these two narratives, we cannot dismiss the impact of Siamese hegemony on Kelantan and Pattani despite the different nuances. The unification of Pattani, Kelantan, Terengganu, Bedelung (modern-day Phattalung) and Singgora (modern-day Songkhla) under ‘Greater Pattani’ during the first Kelantan Dynasty of Pattani Sultanate under Raja Sakti I in the seventeenth century had undoubtedly become one of the foundations of Malay social identity in the northeast of Malay Peninsula (Mahmud 2018: 250). With the Islamic education spread through literary works and the traditional school system of *Pondok* since the seventeenth century, it adds another complexity within the dynamism of social interactions between people of different classes, particularly to our concern within this study is on the aspect of performing arts. We will now look into our subject of interest, Mak Yong, and observe the past research and issues connected with such complexities within the Malay identity in the northeast of the Malay Peninsula to construct the foundation of our understanding.

## **1.2 Mak Yong**

### ***1. 2. 1 History***

Mak Yong is a traditional dance theatre that combines music, theatre and dance. This dance theatre is very popular on the east coast of the Malay Peninsula, specifically

in Kelantan, Malaysia. It is usually performed by eight to ten people in a rural area, while a more elaborate performance such as in the capital city will be performed by twenty to twenty-five members. The majority of the repertoire performed by troupes has a shared tradition with other performing arts around the region, namely *Wayang Kulit Melayu*, *Wayang Kulit Siam*, *Nora Chatri*, *Manora* and *Bangsawan*. *Anak Raja Gondang* is derived from *Suvarnasangkha Jataka* (The Golden Shell Jataka) and is a famous story around Cambodia, Thailand, and Tibet (Ghulam-Sarwar 1990: 27). In its folkish form, it is usually performed during a special occasion of celebrating a special event, or it can also be done as part of a healing ceremony to cleanse a patient that was disturbed by evil spirits spiritually. It is usually done alongside *Main Puteri*<sup>1</sup>, another form of ritual folk performing arts connected to Mak Yong for such spiritual occasions. In its commercial form, the performance will omit the elaborate opening and closing of its animistic ritual, focusing more on the entertaining aspect of the performance while having a more significant number of performers and a better costume. The dramatic acting of the performance is usually an improvised one without a script due to the nature of Malay oral tradition. The origin of this form of dance theatre or the year it was created was not found in any written archaic source except as part of oral traditions that suggested supernatural beings deities even as far as relating it to the prophets of the Abrahamic religion (Ghulam-Sarwar, 1992: 23). Mubin Sheppard believed that (1972: 58) Mak Yong was introduced to Kelantan from the kingdom of Patani around 200 years ago. According to him, one of the pieces of evidence was the mentioning of the *Nobat*, a palace orchestral ensemble in the *Hikayat Patani*, the historical accounts of the kingdom to which is now part of southern Thailand. Ghulam-Sarwar Yousof rebuked this opinion as Mak Yong has never utilised the *Nobat* as part of its musical ensemble and neither shown in any earlier historical accounts until today (Ghulam-Sarwar 2018: 8). Another historical piece of evidence presented by Sheppard was a European trader, Peter Floris, in 1613. The accounts mentioned on the palace entertainments offered to them during the visit. Ghulam-Sarwar Yousof also rebuked this evidence as he argues that the description given by Floris was not enough to conclude that Mak Yong existed as claimed by Sheppard, nor can it be taken as evidence support that Mak Yong was a court tradition. Another Sheppard's theory rebuked by Ghulam-Sarwar is the origin theory of Mak Yong derived from Ma'Hiang, the Mother Spirit who watched over the rice crop (*ibid.*: 13 – 20). He

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<sup>1</sup> See Ghulam-Sarwar Yousof 1992: 24-32.

criticised this undeveloped theory as Sheppard does not provide further evidence that concretely supports the suggestion through linguistic, Malay mythology, or the semiotics of the performance itself. Despite these problematic early theories by Sheppard, however, documented historical narrative of the art has been around for quite a while through several reports by foreign scholars at the turn of the twentieth century.

Frank Swettenham made the first official record on the art form in ‘A Malay Nautch’, written in 1878. The accounts record the Muharram celebration in Penang, northern Malaysia, including the performance of a Mak Yong troupe travelling around the region. Ghulam-Sarwar Yousof also reaffirms this encounter as a valid case since the Shiite community in Penang, and the celebration was significant to this Islamic sect (Ghulam-Sarwar, 2018: 5). He further explains that there are records of Mak Yong troupe tour around Kedah, and some may travel to the island of Sumatra. Such occasion is also why Mak Yong exists in Serdang, North Sumatra, in modern-day Indonesia (Ghulam-Sarwar, 1992: 22). The art form had increased in popularity at the end of the 19<sup>th</sup> and early 20<sup>th</sup> centuries in that particular region. The art form also spread to the Riau Islands to what is now also a part of Indonesia. The earliest record of Mak Yong’s existence in Riau can be observed through a Malay poem entitled ‘Syair Perkahwinan Kapitan Tik Sing’, written in 1861 (Darmawaan 2021: 2). In Serdang, Kedah-Perlis groups were responsible for bringing the art form, which later on was encouraged by Sultan Sulaiman Shariful Alam Shah (1888-1946), the Sultan of the North Sumatran Kingdom of Serdang and Deli (Ghulam-Sarwar, 1992: 58). Meanwhile, Mak Yong in the Riau islands was brought by a group led by Mak Ungu from Tanjung Kurau, present-day Singapore (Pudentia MPSS 2010: 4). Today, the difference between these groups was not apparent except for the Malay dialects used due to the different political entities under which the groups operated. Another significant difference between them is perhaps the costume, specifically the mask usage mainly for the main characters in North Sumatran and Riau Mak Yong, a trait not shared in Kelantanese Mak Yong of today. We will revisit this significant difference as part of our main discussion later.

In the early 20<sup>th</sup> century comes another essential work done by the French ethnologist Jeanne Cuisinier, who studies the dance rituals in Kelantan through her work in *Dance Magiques De Kelantan*, published in 1936. The piece touches on the detailed description of the ritual aspect in Mak Yong for the first time and suggests the origin of

the folk tradition. According to Mohamed Afandi Ismail, in his dissertation submitted to the Malaya University Faculty of Malay Studies in 1975, before 1926, seven groups of Mak Yong troupes were identified as active and an additional five between 1926 and up until the break of World War II (Ghulam-Sarwar 2018: 6). Mak Yong had also received royal patronage and was briefly considered as a court entertainment with the support from Tengku Temenggong Ghafar of Kelantanese royalty (Ghulam-Sarwar 1992: 23). There was even a cultural village named Kampung Temenggong or Kampung Raja, designated for cultural artists of all sorts of cultural performances, including Mak Yong (Habsah Mohd Noordin 1999: 66). After the death of Sultan Mohamad IV in 1920, Mak Yong was brought back to the villages, its original rural roots. Around 1971, this traditional dance theatre form has surged into the attention of Malaysian art enthusiasts with the rise of a group named Sri Temenggung<sup>2</sup> that, until today, still existed as a troupe, continuing the legacy and traditions of Mak Yong. Since the first mention of Mak Yong by William Walter Skeat at the end of the 19<sup>th</sup> century, the art form has been a subject for a few notable scholars who discussed various aspects of its performance. Mubin Sheppard, Amin Sweeney and Ghulam-Sarwar Yousof, among others, are some of these prominent scholars. Elements that have been covered in the past include the history (Mubin Sheppard, Amin Sweeney, Ghulam-Sarwar Yousof), costume and their aesthetics (Suriyami Abas and Habsah Mohd Noordin), Characters Analysis (Rosdeen Suboh), dance analysis (Mohd Effindi Samsuddin), ritualistic and its animistic background, the repertoire used in performances, the oral culture in Mak Yong communities and the entrepreneurial aspect of a Mak Yong troupe (Farok Zakaria and Mohamed Afandi Ismail).

Today, Mak Yong has earned its position as one of the important intangible cultural heritage in the world through the recognition by UNESCO<sup>3</sup> since 25<sup>th</sup> November 2005. Being one of Malaysia's most important performing arts, it is occasionally performed among the people, especially for the international audience at Malaysia Tourism Centre (MaTIC) or Istana Budaya in Kuala Lumpur. Such recognition was not possible if not for the revitalisation of the art through the Sri Temenggong Mak Yong troupe. Its prima donna, the late Khatijah Awang, had also earned national recognition through the National Artist Award in 1999 due to her contributions and dedication

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<sup>2</sup> Named after the Cultural Village in Kelantan, Kampung Temenggong.

<sup>3</sup> Document ITH/08/3.COM/CONF.203/1, page 5.

towards the art. Currently, Mak Yong has become one of the core subjects taught at various performing art schools all over Malaysia, specifically the National Academy of Heritage and Cultural Art (ASWARA), Mara University of Technology (UiTM), Malayan University, and Sultan Idris University of Education (UPSI). Today, the interest from the international community and Malaysian public has not entirely died out due to its presence through educational platforms and tourism purposes despite its ban to be performed in Kelantan during the 90s. The main reason for its prohibition by the state government, headed by the Malaysian Islamic Party (PAS), was that its ritualistic aspect does not adhere to the Sunni<sup>4</sup> Islam practice. In a report dated 1<sup>st</sup> of March 2007 by the Malaysian newspaper The Star, the then State Culture Committee Chairman Datuk Anuar Tan Abdullah reminds that the art is not to be performed in public. The exceptions would be only for private or international tourists' research purposes.

### ***1. 2. 2 Conventions and Performance Structure***

The performance structure of Mak Yong starts with elaborated rituals collectively known as *Buka Panggung*. This ritual started off with the preparation of the stage (*Bangsai*), followed by placing of the instrument in their respective positions, stationing musicians according to their instruments and the preparation of the offerings (*Bahan-Bahan Kenduri*). The *Bangsai* is usually made out of attap and bamboo with a size of about twelve feet and is open to all sides. Usually, the stage will not be raised from the ground so that the performance will be made upon a mat-covered ground. The mat-covered floor is a must so that the longer dimensions are aligned east-west. In the present day, however, such a stage is usually made for *Main Puteri* ritual performances, while Mak Yong will usually have its own larger and floor-raised stage around five feet above the ground<sup>5</sup>.

Once the preparation is completed, a senior member of the group will act as a *Bomoh* or *Pawang*, a shaman, to conduct the ritual of starting off of musical instruments (*Buka Alat-Alat Muzik*) before proceeding to the next step, the *Buka Panggung* to where the theatre is ritually consecrated and opened. The last sequent after the *Buka Panggung* is the opening ceremony of *Mengadap Rebab*, where the main lead role will sing,

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<sup>4</sup> A sectarian Islamic school of thought that has been majority accepted by the Muslim community in Malaysia.

<sup>5</sup> For further details, see Ghulam-Sarwar, 1992: 24.

followed by his or her chorus. Then there is a movement of the fingers, shoulders and the body as they sing their part done in a slow but graceful manner. Slowly they will move around and stand straight before circling the stage with a slow dance where one of them will again sing a solo part. The song is called *Sedayong Mak Yong*. After the opening performance ends, the show will then start. The entire sequence begins with the *Raja* (*Pak Yong*) or the king seeking his companion, *Peran Tua*, after bidding farewell to his wife (if any) and the rest of the ladies of the palace. After receiving the instruction from the *Raja*, *Peran Tua* will visit his companion, *Peran Muda*, before making a point to come to the palace and meet with the *Raja*. The two will then meet with *Raja* at the court, kneeling and humbly salutes before the *Raja* introduces himself and his identity. It is worth noting that up to this point, the audience has not yet been properly introduced by the *Pak Yong* as *Raja* and thus, his identity is yet to be revealed. The subsequent dramatic interactions will reveal the story that will be told for that particular period. Usually, the *Raja* will unveil his intention for his invitation to the two *Peran* characters, usually, it is to ask for the interpretation of his dreams or to convey his wish of wanting to go on a journey. The following night, the story will then be continued before it will be closed at the final night with a simple ritual ceremony instead of the more elaborated opening night of *Buka Panggung*. Usually, the performance will last about three days in a rural area. The ceremony will end with a closing round on the last day, although not as elaborate as the opening sequence.

The performance usually consisted of a male lead called *Pak Yong*, where usually they will be the *Raja* (King) or *Raja Muda* (Prince). The role can be acted by a female or a male actor, although it has become a staple for females since the early twentieth century. Sometimes, this role can be divided into two; *Pak Yong Tua* and *Pak Yong*, where the former would be the king and the latter would be the prince. The female lead, *Mak Yong*, can also be divided into two; *Mak Yong*, usually becomes the queen, and *Puteri Mak Yong*, her princess. The same goes for the role of *Peran* or *Pengasuh*, the male attendant, where it can also be divided into two, namely *Peran Tua* (The Old Attendant) and *Peran Muda* (The Young Attendant). Then there is *Inang* the female attendant, or the *Dwenna*, *Tok Wak* the old man, *Dewa-Dewa*, which is the gods and the spirits in the story, *Jin* and *Gergasi*, which are genii and ogres, *Orang Darat*, the villagers and *Burung* and *Binatang*, the birds and animals in the story.

### 1. 2. 3 *Costume and Paraphernalia*

According to Marlenny Deenerwan (Deenerwan 2017: 198), every nine types of characters follows a general set of principles. The first is the symbol of sovereignty for a king towards his subject. This symbol is applied to the leading role played by Pak Yong. For a king, the character requires a headgear called *setanjak*, a small Malay dagger called *keris* and the reed rattan called *kayu bera*. The second principle applied to the characters from the lower social background symbolises loyalty towards their ruler. Characters such as Peran typically embody this principle using a humble headgear called *semutar*. It is usually a cloth wrapped around the head, traditionally worn by farmers on the east coast of the Malay Peninsula. Others, such as Inang and Dayang, have a similar approach to this aesthetic where their costume is more subtle than those in the higher hierarchy. The last two principles concern the good and evil characters. Typically Dewa characters such as Betara Guru will don a white robe to symbolise purity. In contrast, evil characters such as genies and ogres will have ferocious makeup with costumes suitable for the antagonist nature.

In general, there has been a progressive transformation in the costume used by the Mak Yong groups over the years. This transformation is undoubtedly due to the increasing recognition given by the government and academia since the 1960s. The material used, the decoration, stage props, and even makeup are utilised appropriately to bring the grandeur nuance to the performance. Mak Yong, in the contemporary social context no longer being performed only to the audience in the rural area, but also those in the city that spend tickets for their performance on a grand stage such as the Istana Budaya located in Kuala Lumpur. The development of costume in Mak Yong seems to be affected by two significant factors: economic and cultural conflict. Through a study made by Suriyami Abbas on the ‘Stylistic Development of Mak Yong Costume in Malaysia’ (2009), the costume worn by actors and actresses progressively developed as Mak Yong groups climbed on the ladder of social status through recognition and financial gains.

However, despite this development, Mak Yong is constantly threatened by the Islamic revival movement in Kelantan, where its costume tradition does not adhere to the Islamic principle. This observation is made through the Suriyami Abbas study, where female characters fluctuate most. These constant fluctuations could be affected by the

Islamic revival in Malaysia in the 80s. Furthermore, the regulations made by the Kelantan state government led by the Islamic Party PAS in the 1990s after they won the state election also hinders the development of Mak Yong. The regulations decree that all Mak Yong performances will not be publicly performed unless they adhere to the Islamic principle. Since the ruling does not apply to the rest of the Malaysian state, Mak Yong today is performed in two styles: the version following the Islamic principle and the one which does not. There are several news and reports by printed media, peers and experts on the issue, where some of them express their concern on how such ruling would badly affect the purity of art form and its survival. (Ghulam-Sarwar 2014: 200, 2018: 95, Zurairi 2019, Babulal & Madaven 2019)

#### ***1. 2. 4 The Concept of Semangat and Angin in Mak Yong Cosmology***

Central to the discussion on Mak Yong is the root of its belief system made out of several layers of belief systems influencing the region over millennia, namely Hinduism, Buddhism and Islam on top of the local animism. Over the last one hundred years of its studies since the first mentioned by Frank Swettenham, scholars have approached Mak Yong's Malay spiritual and mystic belief system. The analyses include elements from the spiritual healing of Main Puteri, Mak Yong or the combination of these two. Ghulam-Sarwar, Cuisinier, Skeat, Endicott, among others, through the ethnographic approach, had attempted to understand and describe the concept of *Semangat* and *Angin*, inclusively vital to our Mak Yong study. Our focus of analysis in this dissertation is to look at how the ideas from this belief system influence the choreography in the Mak Yong opening dance of Mengadap Rebab.

The complexity of these two concepts begins with discussing the word's definition. Ghulam-Sarwar contested early ethnologist definitions as they were mistakenly translated the meaning of *semangat* with that of the English or western concept of 'soul' (Ghulam-Sarwar 1992: 7). Colloquial Malay language in everyday conversation uses 'semangat' to address the desire to put effort or the will to do something or a particular activity. To cheer anyone is to give 'semangat' or lift the spirits for the targeted subject to continue pursuing the action and achieve the objective intended. '*Kata-kata semangat*' or 'words of encouragement' is considered as lifting words to uplift the spirit of a particular group or individual before the commencement of the activity, usually of importance to the group, company, or a person. Dewan Bahasa



Pustaka Malay language dictionary (Dewan Bahasa Pustaka, 1996) gave several definitions. Other than what had been stated earlier, it also means emotions, intentions embedded in an agreement or,

*“Roh yang terdapat dalam segala makhluk (dipercayai mempunyai kuasa-kuasa tertentu)”*

which can be translated in English as “soul that is inside of every creature (and is believed to hold certain mystical attributes).” However, it should be worth noting that this English translation of ‘soul’ has its challenges. The western concepts of the human soul are different in terms of its literal meaning and contextual definition. In the early attempts to understand this complex concept within the Malay cosmology, Skeat describes *semangat* as a type of mannikin with having characteristics of ‘vapoury, shadowy, filmy’, invisible and having a size of a thumb with a similar shape as its casing or the body it resides. The *semangat* will be temporarily absent in sleep, trance, disease and permanently in death. Imagined as a bird, *semangat* too can be a call or displace in another medium. Therefore, it leaves them susceptible to malicious intentions and treatment through magic or traditional healing. In the next section, he describes the concept of soul in animals, vegetables and mineral ores. In brief, he explained that these souls are the miniature version of their physical bodies.

Meanwhile, Annandale and Robinson’s (Annandale & Robinson 1903) made a better distinction between the concept of *semangat*, *roh*, *nyawa* and *badi*. All four concepts were regarded as the same in the human soul, although it enlightens different aspects, therefore carrying a different nature. The report firstly introduces the concept of *nyawa* according to the Pattani Malays. The critical take of this concept is that the soul will perish in the death of a human being. The god will then judge *Nyawa*, and it will be decided if they are going to hell or heaven in the hereafter. For the newborn, *nyawa* is believed to be entering the body at the end of the sixth-month pregnancy. The second concept of the soul, called *roh*, is the part of the soul that will leave the body during sleep. Due to this belief, several cultural taboos were told, such as the unwillingness of the Malays to disturb another man in his deep sleep to avoid the soul unable to come back correctly.

In the third entry on the concept of *semangat*, the authors nod to the previous work done by Skeat in ‘Malay Magic’. Central to the approach made by Annandale and Robinson’s discussion on *semangat* is the contextual definition of the word by the Pattani Malays and concerning other Malays in the peninsular. Observations were also made towards the role of *semangat* concerning the culture of magic and charms in several instances. As *semangat* is susceptible to magic, weakened ones are prone to disturbance by evil spirits as they can easily enter the body with weak *semangat*. The cause of this weakening on the *semangat* could be stemming from bodily illness, worry or fear. Another interesting discussion pertaining *semangat* is during childbirth. Patani midwives believe that *semangat* enters a child's body as the umbilical cord is severed from the mother. A specially-made bamboo knife is used with black cotton as the ligaturing tool for the cord to ease the process. Infringing this tradition will risk the baby having a fever or delirium, a sign that shows the absence of *semangat* that could not enter the body. This could be why iron tools were never used during childbirth, as observed during the study, as it is believed to frighten spirits. In the last part concerning *semangat*, the study explains other types of *semangat* in animals, plants, objects and even places. The study observed the manipulation of animals’ *semangat* through magic incantation to entrap them. The concept of *semangat* through this study enlightens on how magic and charms could manipulate humans and animals.

In plants, a particular focus on context was on harvesting goods such as the paddy. Although huge jungle trees are believed to have their individual *semangat*, in the case of paddy, it usually refers to a group of paddy in specific locations. By preserving *semangat padi* or the sheaf in which it will be used for the next harvest, the planting and harvesting of rice continue as part of the sustainable traditional agricultural method. Thus, *semangat* in this context refers to the soul metaphorically rather than literally. A disrupted cycle through spoiled *semangat padi* will affect the cycle of harvest, which is analogous to the cycle of life and death of a person. Contextually, this could be why colloquial Malay suggests the paddy to hold ‘soul’ in the agricultural harvest cycle as its importance is the core to the activity, just like the importance of the soul in humans and animals’ life cycle. Human economic activities hold pre-eminence to the observation in the study. The *semangat* in mineral ores is explained through the role of shaman or *bomoh* in ensuring that the *semangat* does not disturb the process of mining activities. Once every seven years, the shaman will be tasked to sacrifice to ease the spirit of the tin mine located at

the border of Yala - Raman. The final discussion on *semangat* by the study looks at several other examples for inanimate constructed objects such as houses, chests and boats. The extension of arguments made by Annandale and Robinson place the perspectives of *semangat* to the essential activities by the Pattani Malay. The livelihood from the self-being, agricultural or economic perspectives to the valuable goods in possession have certain animistic values embedded within the important objects central to the social and economic structure. Others such as plants, trees, or forests are not seen as having a clear definition within the concept.

The final section discusses the last aspect of the soul observed called *badi* and its effects on human life. This aspect of the soul, also called 'mischief' by Annandale and Robinson, is a type of soul that existed in both humans and certain animals after death. It is regarded as a bad spirit that could devour the person's *semangat* or liver if anyone dares to approach it. To prevent this, it is best that a person is equipped with a strong *semangat* or learn magics and incantations to deal with a bad death or the knowledge to cleanse their hunt once it was killed before proceeding to bring it back home. Several specific animal examples are given where *badi* existed, such as deer, serow, mouse deer, wild pig, hunting dogs, monkeys and reptiles. Other animals such as elephants, rhinoceros, tapir or feral cats, although they do not have *badi*, other terms are associated with it, having similar definitions although not entirely the same such as *kuang* for the former and *pegrung* or *begroh* for the latter.

The approach of Annandale and Robinson separates the questions on different aspects of the soul in man according to the Malay worldview. While Skeat does not attempt to rectify further the definition due to the lack of material needed, Annandale and Robinson further clarify the distinction between several aspects of the human soul based on several specific activities other than definitions through language. We realised that Skeat's dimensions only concern shamanistic activities and their relations to the human soul. At the same time, Annandale and Robinson touch the aspect of the soul in childbirth, during hunting, during sleep, economic activities and even material culture.

The next attempt to theorize the Malay concept of *semangat* was done by French ethnologist Jeanne Cuisinier published in 1951 titled 'Sumangat: l'âme et son culte en Indochine et en Indonésie'. Her analysis on the concept of *semangat* centres around two crucial spiritual healing activities: *sambut semangat*, or recalling the soul and *membuat*

*semangat* or repairing the damaged soul. She argues that both actions have a different ideological approach towards the soul despite focusing on soul healing. The process of recalling the soul concerns a particular soul while the other is on the storing of undifferentiated *sumangat*. Through these activities, she analysed and explained the fluidity of the *sumangat* concept while at times making some comparisons with similar ideas from other communities in the region, such as communities in Indonesia and Indo-China. This ambiguity with no clear distinction between the spirit world and the physical world sets the Malay concept of the soul apart from the western idea of the soul. However, Endicott (1970: 35) finds this analysis approach problematic, as it is hard to differentiate between Malay perspectives on *semangat* from other communities. Thus, this creates an improper summary regarding the concept as the Malay's concept being analysed overlapping with that of other communities.

In tackling such issues, Endicott's research on Malay Magic through 'Analysis on Malay Magic' (1970) contributed to understanding the definition of *semangat* by creating a structured analysis framework that approaches *semangat's* description inherently, in relation symbolically. He started his research by acknowledging past studies' work, particularly data and definitions obtained by Annandale and Robinson from the Pattani Malay. The combination of inherent and relational definitions thus creates a structured understanding of the symbolic meaning of this cosmological concern towards the Malay world. Adding to the discussion on the definition of *semangat*, Ghulam-Sarwar provides further context on the definition through his research on ritualistic healing performing arts of the Malay in the Malay Peninsula, including Mak Yong, Main Puteri or Mak Yong – Main Puteri since the 1970s (Yousof 1992: 7 - 15). He agrees that the concept is central to the spiritual healing activities of these folk traditions, although he argues some of the previous definitions made on *semangat*. The root of his argument lies within the linguistics confusion created by previous research on the concept of the human soul, including those of Endicott, Winstedt, Wilkinson and Firth. He then proceeds to explain the etymological differences for *nyawa*, *roh*, *semangat*, *sokma*, *malaikat*, *penunggu/penggawa* within the emic perspective of the Malay language. The basic form, *semangat*, is seen as a universal life force, exists within all life forms, including objects. He further extended the discussion by placing the position of the human within the cosmological hierarchy as having an awareness of its existence and the means to control this particular aspect of the soul. Through this cosmological

awareness comes the social position in *pawang* or *bomoh*, the intermediaries between the spirit and the physical world. The role of ritualistic traditional performing arts within this context is the initiation ceremony or as a bridge to connect the role of a man to *semangat* in the unseen spirit world. It resulted in a uniquely different perspective of the soul within the Malay world; *roh* and *nyawa* could not be controlled and *semangat*, which humans have a certain degree of control.

Throughout our literature review, the definition and discussions around the concept of *semangat* gave us several important conclusions regarding this concept within Malay performing arts. Despite the misinterpretation with other related terms, it is always defined as the vital life force that existed in all living and particular objects, including minerals and structures. While other concepts also refer to the human soul, such as *roh* and *nyawa*, the importance of *semangat* within the Malay traditional values lies within the perspective of one's spiritual vitality and how to manage appropriately. It places humans, the man, at the centre of the Malay's spiritualism philosophy where the knowledge could be used as good practice within the social context or malice purposes. Although the concept holds humanity as the highest form of spiritual hierarchy within the creation of all living and non-living things, it does not give them absolute control over the matters pertaining vitality of the life force. While knowledge on managing these spiritual matters can be helpful within social interactions, such as shaman by *pawang* or *bomoh*, they could still be susceptible to being controlled or damaged within the social constructed spiritual rule. This context gives a specific social responsibility to those who wield the knowledge either by inherited or intended learning. The role of the shaman is then seen as the centre of all matters on spiritual vitality and healing, but at the same time comes with the responsibility on the dissemination of culture and traditions through ritualistic spiritual healing performance such as Mak Yong or Main Puteri.

### ***1. 2. 5 Mak Yong – The Northeastern Malay Peninsula's Aesthetic***

The path towards the understanding of Mak Yong has led us to mitigate the multiple layers of socio-historical, structure and traditional values of Malay people in the northeastern region of the Malay Peninsula. Through various channels of literary resources, we understand that this form of art was cultivated and infused with other influences brought through on-land and maritime trading activities. Through the account during the Yuan Dynasty, for example, we were informed that lute-liked musical

instruments were one of the trading items in Kelantan. Even though we could not determine the specifics of the instrument, we can generally agree that elements such as Rebab could have made their way to this region from the trading activities as it is regarded of middle-eastern origin. Another interesting observation is that women in Mak Yong could also be donning the role of the lead actress, Pak Yong, that usually play the king in the story. In some instances, Mak Yong groups such as the Sri Temenggung were also led by women. Thus, this shows the fluidity of the relationship between leadership role and gender within the social hierarchy of the northeastern region in the Malay Peninsula, particularly those of Kelantan – Pattani. We could observe the evidence throughout history that shows women had played huge roles within the higher ranks in the social class of the society. The position of Mak Yong today reflects the rich multi-layered culture of the past within the northeastern region of the Malay Peninsula. It serves as a platform to observe its ever-evolving cultural elements in keeping up with the changing of time. The reactionary response towards the ban in its home state of Kelantan due to the restriction caused by the local religious authority is one of the opportunities for observation and documentation. Despite the minor changes, however, we could not entirely disregard them as they impacted the form in several aspects such as the costume, its players, performance space and delivery method. The impact can be understood evidently through a report in the local news (Idris S. R., 2020 and Bernama, 2020). It will be interesting to see how these small changes will result in the permanent change of the art form in the future. While we cannot determine or predict, we could construct an approach to determine the connection between several vital elements in the performance towards the choreography of dance or its symbolic representation. In the next chapter, we will construct a theoretical approach to this connection and narrow our scope to better focus on looking at this relationship within the traditional performing art.

## **CHAPTER 2**

### **CHARTING THE ELUSIVE**

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#### **APPROACHING MAK YONG BODY CULTURE IN MENGADAP REBAB**

In the previous chapter, we looked into the socio-historical settings of Mak Yong, particularly in the north-eastern part of the Malay Peninsula consisting of the modern-day Pattani, part of Southern Thai and Kelantan, the east coast state of Malaysia. The multi-layer aesthetic reflected in Mak Yong as reported by several scholars such as Ghulam-Sarwar Yousof (1992: 27 & 2018: 28, 85) and Ghouse Nasruddin (1995: 4) can be understood as the product of social interaction in the region due to the global trading activities in the past. However, despite various researches conducted on Mak Yong for more than 100 years, there are still some unanswered questions due to the limited recorded data and the nature of oral tradition within the genre. We will address these issues in the next part of this chapter before constructing our methodology and framework to answer these issues.

#### **2. 1 Problem Statement**

The realm of discussion on Mak Yong had been covered extensively especially after 1970s, with Mak Yong's revival through the Sri Temenggung Mak Yong group. The main concern that sparked this study is the absence of utilizing technological advancement as a new approach within the field. The exhaustive research on Mak Yong focused on the ethnographic approach to understand the nature of this traditional art. However, there has been a new growing interest on research in the Digital Humanities globally. Due to the absence of such approach being implemented on Mak Yong and

generally in Malaysia, our task will also focus on the evaluation of the method's effectiveness in answering the inquiries presented in Mak Yong. Hence, while the main drive of this research is to close the gap in some area while extending the discourse, we will also evaluate whether the implementation of this particular approach is adequate to pursue in future research.

The base that forms the foundation for inquiries in this research concerns one particular aspect of argument which is the dysconnectivity between the earlier recorded data on Mak Yong with the period after that. Through our literature review, there are three periods of Mak Yong research conducted in Malaysia and can be understood as pre-independent Malaysia and post-independent scholarly work. Pre-independent research period consisted of works done by Skeat and Cuisinier, while post-independent research period was spearheaded in the 1970s by the works of Mubin Sheppard, Ghulam-Sarwar, Ghouse and others later on. The two periods mentioned earlier is the time gap in between significant research on the subject of Mak Yong. Skeat's work in the early twentieth century can be considered as an early attempt to understand the role of Mak Yong in the cultural tradition of spiritual healing and shamanism. After his attempt, lies a thirty year gap of idleness in the fieldwork before it was recorded again by Cuisinier in the 1930s. Research done by Cuisinier is also important as it recorded the traditional art during the period of Kampung Temenggung's artistic village in Kelantan. The last period is fieldwork done after the independence of Malaya from the British in 1957. In the 1970s, during the revitalisation of Mak Yong, other studies were done to further define the traditional art as we know today.

Despite these efforts however, less emphasis was done to define the traditional art as a borderless phenomenon. If we look into the definitions given by Ghulam-Sarwar and other scholars who came after, most descriptions focused on the version of Mak Yong found in Kelantan, that was known from the 1970s onwards and less on the pre-independent Malaya works done by Skeat and Cuisinier. Some mentions and criticisms were made on these previous works (Yousof 2018: 5 - 6). Although differences between Mak Yong in Kedah, Sumatra, Riau, Pattani and Kelantan was acknowledged especially by Ghulam-Sarwar (Yousof 1992: 58 – 63, 2018: 3), further works on Mak Yong's borderless nature was less defined other than a general description regarding its existence outside of Kelantan (Hardwick 2014: 40, Lela Erwany 2020: 15, Pudentia 2010: 3). The



UNESCO declaration on Mak Yong as a intangible heritage has further solidified its definition where it only refers to the descriptions on Kelantan's version of Mak Yong and thus became problematic in understanding the form. While the descriptions on Kelantan's Mak Yong is not necessarily untrue, as it was acquired from the point of view of the community in Kelantan, it nevertheless fails to address these questions in relation to the previous research on the form.

1. Why do the costumes and accessories, specifically the use of fake fingernails and mask in Mak Yong during the pre-independent Malaya are not being used in the Kelantan version today?
2. What is the relationship between Mak Yong, Mek Mulung and Menora that shares similar features such as the use of the mask for certain characters?
3. Can the connection between these traditional arts be evaluated through the shared feature of accessories and costumes?
4. Is there a connection between accessories and costumes with choreography?

These questions were constructed due to the difference between the data obtained during the post-independence Malaysia and pre-independence Malaya. Skeat's data shows the difference between Mak Yong during his time where it still includes the use of the mask for certain characters particularly for *Peran*. The use of the mask is also the same with Mek Mulung except for the use of musical instruments, where the Rebana is used instead of Rebab and Gendang. If Skeat was wrong during his collection of data, then there should be no performing arts called Mak Yong today in Riau and Sumatra that uses the mask. Report by Cuisinier also observed that the use of the mask in Mak Yong is not as prominent in Kelantan compared to other places such as Pattani, Kedah and Perlis (Cuisinier 1936: 88). There is even photographic evidence from the digital archives in The Netherlands that shows a Mak Yong performance in Penang and Perak using the mask in its performance (Lambert & Co. 1903 (A) & (B) ) during 1903. Another evidence came from the Thailand National Archive, where it shows the photography session for a Mak Yong group during the reign of King Rama V (1868 - 1910). Looking at these evidences, it seems that only the Mak Yong in Kelantan which does not utilize the mask in their performances. Or at least there is a mixture between those groups that use the mask and those that do not use the mask according to Cuisinier's observation in the 1930s.

Due to these contradicting realities between the current perception and definition towards Mak Yong and the previous recorded data, we are now in a dilemma to find other ways of data collection to determine these connections. The usual ethnographic approach has its limitations based on our literature review:

1. It cannot address the reality beyond the memories of the elders or the inherited memories within the community.
2. It cannot address the connection between Mak Yong's features or elements with that of other Mak Yong in the Southeast Asian region such as those in Sumatra and Riau.
3. It cannot address or explain the change in tradition in the past generations.

As Mak Yong relies heavily on Malay oral traditions, it will be harder for researchers to determine its history and historiography, if data is solely based on the point of view from its community. After reviewing literary sources on Mak Yong, the lack of discussions on the connection between Mak Yong in Sumatra, Riau and Kelantan within the oral history denotes this challenge. Furthermore, the lack of joint research between scholars of each Mak Yong variation makes it even harder to extend the discussion. It seems that the realm of discussion focuses on the ontological argument on each individual variation itself rather than looking at the connection between them as part of the larger idea in socio-historical sense. What is needed is an additional method to compliment the current approach as a way to enrich the analysis process. Thus, in order to pursue and address these issues, we will need to find a new method that will fit these criterias:

1. The method will utilize the inherited data of the community of interest
2. It could address the issues beyond the oral memories and traditions of the community
3. It can enlighten any changes within the tradition

The inherited culture within the community mentioned here includes the structural aspect of Mak Yong performance, the body of knowledge on Mak Yong, including its philosophy, belief system, ritual aspect, spiritual healing, among others. While some of these aspects had been observed by scholars through ethnographic approach, we are interested in data that could provide us with information on the embedded values that goes beyond the current state of social construct within the

community. Specifically, we are interested in looking at the learned body culture inherited throughout the community. As this could potentially assist our understanding of the past social interactions beyond the local oral memory. The nature of human as social animals has been thoroughly explained by zoologist and ethnologist Desmond Morris. He divided the body language learned by humans into five categories; Inborn Action, Absorbed Action, Discovered Action, Trained Action and Mixed Action. Inborn Action are actions that we do not need to learn and is performed naturally such as smiling, frowning or crying, evidently done by all newborn babies (Morris 2002: 5), while Discovered Action are actions that we discover on our own, such as salute or high kick (*ibid.*: 11). Absorbed Action are the ones that we absorbed from our social interactions or through our companions and it varies from one culture to another. For example, a number of actions within the group of homosexual males (*ibid.*: 13). Trained Action are actions that require efforts to learn, like turning mid-air somersaults or walking with our hands (*ibid.*: 16). Lastly, Mixed Action is the combination between the aforementioned actions (*ibid.*: 17). Important to our discussion for this study is the Absorbed Action, Trained Action and Mixed Action, where it could help us understand the process of knowledge acquisition by human species. Using this paradigm of discussion, it will enlighten us on how body culture within the Mak Yong community was being passed down to the next generation. More importantly, Desmond Morris explained how these information is more likely to sustain within the community over generations, even though the context will be different from originally intended due to changes within the society such as cultural revolution. He noted,

*“So one must not be misled by cries of total cultural revolution. Old action-patterns rarely die - they merely fade out of certain contexts. They limit their social range, but somehow, some- where, they usually manage to survive.”*

*“...We may no longer be aware of the original meanings of many of the actions we perform today, but we continue to use them because we are taught to do so.”*

*“...In this way, the early history of many actions is rapidly obscured, but this does not hamper their acquisition by new generations. Soon, they are being passed on, not because they are formally taught, but because we see others doing them and unthinkingly do likewise.”*

(Morris, 2002: 19 - 20)

Through Morris' explanation, we observed several issues that addressed the challenges of depending solely on the ethnographic approach for data acquisition. Firstly, the data collected at that particular point of time can only be understood using the contextual background of that particular era. If there is a change within that tradition, there is a chance that contextual knowledge of that particular aspect will be lost to the future generation. More so, if the social institution that upholds the tradition is not structured strongly to oversee changes within the tradition across groups within the community through documentation methods such as documents and books. We have seen this problematic discourse of comparing descriptive data on Mak Yong between that of Skeat and Cuisinier in the early 20<sup>th</sup> century with that of the 1970s study by Ghulam-Sarwar. Secondly, the process of institutionalizing Mak Yong after 1970s through rigorous efforts in revitalization, documentation and introduction to higher education, further crystallized the definition through the data that was acquired in the 1970s. Although the ontological arguments on the traditional art helped us understand its own definition through sharing of knowledge by its own community, it does not assist us in terms of looking at cultural subject as a progressive product resulting from the combination between social interactions, economy and social belief system. It will then alienate itself from reality beyond the definition that was recorded and will resist any possible attempt of socio-historical revision that is not befitting with the current oral memory of the community. Addressing these issues is detrimental to connect all the data we have on Mak Yong across multiple periods in the history and socio-geographical boundaries around Southeast Asia. Without realizing these shortcomings, we are constricting ourselves to the limits of one research method, where other potential methods should be incorporated if it fits to answer the research gap.

## **2. 2 Objectives of the Study**

We have now come to understand some of the important questions within the study of Mak Yong that needed to be answered through other means than the usual traditional ethnographic approach. However, as much as we would want to incorporate the combination of different approaches in understanding Mak Yong, it is also imperative to observe and consider based on data obtained whether this particular approach suits the need to answer these questions. Thus, we have two main concerns here; to understand

and answer questions regarding Mak Yong and to examine whether or not the use of motion capture is viable in future studies of traditional performing arts in Malaysia. Related to the viability of motion capture in the study of Mak Yong, we will also use motion capture data to extract information regarding the connection between Mak Yong accessories and costume to the choreography of its dance. The importance of this particular objective is not only to look at the relationship between accessories and costume to the choreography, but it could also potentially be used to explain the phenomenon between different sets of ethnographic data on Mak Yong in the previous studies. We will look into suitable theoretical framework to address the difference of ethnographic data obtained between these periods in Mak Yong studies, using the motion capture data as a point of argument. In short, the objectives of this study are as follows:

6. To understand the physical and dramatic movements of Mak Yong's '*Mengadap Rebab*' dance through its movement pattern data obtained using motion capture.
7. To interpret the data and connect to their cultural representation from the bodily expression given in the current and previous ethnographic studies.
8. To examine the connection between the use of accessories and costumes in dance choreography of *Mengadap Rebab*.
9. To connect all past ethnographic data using motion capture data and cultural evolution theory.
10. To examine the viability of using motion capture in the future studies of traditional performing arts in Malaysia.

Based on these research objectives, in the next section we will construct several research questions pertaining to Mak Yong that will be useful in guiding this research.

### **2.3 Research Questions**

In this particular section, we have identified several research questions that will guide us in understanding Mak Yong's *Mengadap Rebab* dance and achieving the objectives that we have constructed for this study. The idea is to uncover the symbolic representations of *Mengadap Rebab* dance through analysing the motion capture data. While we are focusing on this particular matter, we are also interested in uncovering the connection between the costume and accessories in Mak Yong to *Mengadap Rebab*'s choreography. By doing this, we are also observing the limitations and examining the

viability of using motion capture data in future studies of traditional performing arts. Several questions related to issues on costume and accessories to Mak Yong's history is also presented for us to connect previous data to have a better historical consistency and continuity in its narrative.

1. What is the philosophy behind the physical and dramatic movements in Mak Yong?
2. What is the connection between the motion capture data and contextual information obtained through past ethnographic data, oral tradition, participant observation and interviews on Mak Yong's community?
3. What are the patterns of physical and dramatic movements in Mak Yong's *Mengadap Rebab* that we can find using motion capture?
4. What is the process of actor training for Mak Yong that contributed to such pattern in the dance?
5. What are the control variables of the motion capture data to observe the connection between accessories and costume to Mak Yong dance choreography?
6. What is the core philosophy or approach in artistic expression in Mak Yong's *Mengadap Rebab*?
7. What is the social cultural context of the Malay ethnic in the east coast Malay Peninsula that would influence the aesthetic of Mak Yong's *Mengadap Rebab*?
8. What is the phenomenon that we can observe from the data obtained during Skeat's time and the current data on Mak Yong?
9. Can we construct the probable connection between the data on Mak Yong by Skeat with that of the current Mak Yong?
10. Why does the present Mak Yong no longer use the mask and certain accessories in its performance?
11. What are the drawbacks of using motion capture in performance analysis?
12. What are the limitations of using motion capture in designing research approach?
13. What is the extent of replicability on the use of motion capture in traditional performing arts research or experiments?
14. What are the recommendations for future studies using motion capture?

## **2. 4 Methodology**

### *2. 4. 1 Criticisms on Ethnography*

Before we begin the construction of our approach, we will need to address the biggest challenge of our research design, which is evaluating the relevancy on the use of mixed method research that is not commonly seen in previous researches on Mak Yong. Our focus will be on the discussion of previous research methodology done by the predecessors of Mak Yong scholars, notably by Skeat, Cuisinier, Ghouse and Ghulam-Sarwar, who only used the ethnography approach. The ethnography approach by definition has its roots in the nineteenth western anthropology where it was used as a descriptive account on communities outside of the Western culture (Hammersley & Atkinson 2007: 1). Brewer defined ethnography as both a method, as in data collection technique and a methodology (Brewer 1994: 232). While Landis & Macaulay in the cultural study context defined it as “to notate everyday live through the descriptive analysis of culture in intense communication with other.” (Landis & Macaulay 2017: 38). In principle, ethnography is a term that refers to a qualitative research approach that seeks to notate the everyday life of a community, organisation or a group of people. Among its features as suggested by Hammersley & Atkinson are its ‘unstructured’ data collection as it is not based on predetermined variables, like experimental laboratory research design (Hammersley & Atkinson 2007: 3). The focus of its analysis is basically on various aspects of social life including meaning, functions, actions by the member of community, institutional practices and how these aspects impact the livelihood or social dynamics of the community in observation. Due to its nature of focusing on a particular community, the result of this approach are often an exploratory, in-depth and descriptive where it will usually take a considerable amount of time spent on the subject. Other than data gathered through interviews, whether structured or non-structured, documentation of evidence in various mediums can be considered with supplementary of quantitative or statistical analysis where applicable (*ibid.*, Fetterman 2010: 9). The use of quantitative or statistical analysis however, plays a smaller role in this context.

Over the years, it has received various criticisms by various scholars whether it’s from positivist scholars within the social science or the proponents of the approach such as Hammersley and Wolcott, to name a few (Hammersley 1992 & Wolcott 2009). Despite these criticisms, scholars such as Brewer defended ethnography while enlightening some of its strengths and weaknesses, as the method should be reconstructed rather than deconstructed and should not be utilized at all (Brewer 1994: 234 - 235). According to him, the ‘ethnographic critique on ethnography’, focused on two pillars of

discussion, which are the reliability of data and the deconstructed social artefacts of ethnographic text. Thus, in defence to ethnography, it will still provide us with some insight to subjects given that scholars had assessed a considerable amount of loopholes within the research design that will invalidate their findings and experience due to gaps created by un-addressed biases. Hammersley and Atkinson reiterated the importance of reflexivity of one's own ethnographic analysis as inadvertently researchers themselves are subjected to the social dynamics within the social fieldwork and part of the interactions as well (Hammersley and Atkinson 2007: 17). The criticisms made on ethnography by its proponents are not intended to dismiss the approach, but rather to reconstruct ethnography through good practices. Brewer addressed these good practices that should be implemented and considered prior to their analysis. For example, the grounds where generalizations were made, theoretical framework, reasons behind the chosen subjects, establishing researcher's integrity through outlining several aspects within the research fieldwork, establishing the authority of data and address the complexity of data presented (Brewer 1994: 235 – 236). Due to the absence of these elements presented by Brewer in past studies on Mak Yong, we will evaluate the discontinuity observed between data from various scholars in defining Mak Yong's existence in terms of its form, structure, culture and conventions.

#### *2. 4. 2 Critique on Mak Yong's Ethnographic Research*

In essence, as stated previously, the drive for this study is the inconsistency of data throughout Mak Yong's history. While ethnographic approach had addressed some of its philosophy, beliefs and performance structure, it fails to look into the aspect of changes within the form throughout the years since it was first observed over hundred years ago. Even as of today, the tradition is still being challenged by the local Islamic authority in Kelantan, unless it adheres to Sunni Islamic practices (Bernama 2019). Yet again in a recent development, it underwent a slight change in its form where some conventions were not followed due to the pressure from the local religious authority in Kelantan (Siti Rohana Idris 2020). Here lies the problematic discourse, where some observers, such as Eddin Khoo of Pusaka (NGO), argues that the change of Mak Yong's convention and form will discount Mak Yong's true aesthetic and representation of its community (Nabihah Hamid 2019). This may be true in definition if the situation today is in relation to the definition given by Ghulam-Sarwar on Mak Yong, since his research



started in the 1970s. But what about data recorded by Skeat in the earlier part of the twentieth century?

If we take the ethnographic data by Skeat and compare this with Mak Yong today, we will notice that Mak Yong underwent changes where it no longer utilizes the mask nor uses certain accessories for certain characters. If this is the basis of our argument in defining Mak Yong, then we will risk avoiding the nature of culture that changes with time. Our role today is to understand this evolving nature in performing arts rather than defining it solely based on previous research. The understanding of Mak Yong's social construct is important for our basis in understanding the ontology of this traditional art. Without which, we will not be able to understand the full nature of changes within tradition which is equally important. Previous studies focused more on explaining various essential aspects of Mak Yong, whereas this study focuses on integrating various data throughout Mak Yong's history and past researches to have a better understanding on the nature of this art. This study is not interested to capture the data and explore its representation of social construct in this particular period, but rather understanding the process behind its evolution that resulted in the form as we know today. As Landis and Macaulay stated on tradition,

*“We often think that tradition is fixed and rooted in the distant past. Resist this notion. Just as your traditions are mutable and changing based on circumstances, so too are many of the performance-based traditions that are discussed in this book. While tradition, as Hobsbawm notes, is often rooted in an implied connectedness to the past, remember that all tradition is change and evolution.”*

(Landis & Macaulay, 2017: 13)

This is the reason why using the ethnography approach alone will not be adequately enough to address these objectives, as it can only explain the current state of the art. Using the pragmatism paradigm supplemented by Cultural Evolution theory, the research design of this study considers the evolving nature of tradition to address some of the issues explained earlier. The framework will observe Mak Yong as an evolving tradition that reacts with changes in society and attempting to find ways to look into the evolutionary process that contributes to its change, integrating past researches data as context. Through this theoretical framework, we will analyze the natural process that

occurred within the fieldwork that has changed the tradition and its community evidently through missing links between two distinct forms (the masked and un-masked style) of Mak Yong. Due to absence in attempting to address these issues in the past, it is most practical to use pragmatism as the paradigm of discussion supplemented by ethnography approach as one of its methods in acquiring data. In addition to the use of motion capture technology and cultural evolution theory to analyze the data patterns within the context of connection between the choreography and accessories or costumes. We will now visit Pragmatism as a philosophical paradigm and cultural evolution theory as a supplemented theoretical framework.

#### *2. 4. 3 Pragmatism, Mead's Social Behaviourism and Joas' The Creativity of Action Theory*

We have now understood that the discontinuance of data between different periods within Mak Yong's historical narrative was due to the disengagement by scholars on the fact that traditions had always been volatile or susceptible to change throughout time. By approaching Mak Yong and uncovering its ontological discussions, they have instead recorded the tradition within a specific point in a particular period. In this study, we are now left with two major philosophical concerns in approaching this problem; the discourse on Mak Yong artists' social interactions and method on finding the connection between accessories or costumes with the choreography of *Mengadap Rebab*. While inquiries pertaining to Mak Yong artists' social interactions are qualitative in nature, the other half of our concern, which is the connection between accessories or costumes with dance choreography, can be seen through their visual and physical representations. These representations can be approached in several ways; traditionally Laban notation can be used as a tool to observe dance choreography. A more recent trend in dance research approach within digital humanities has seen some applications of using Motion Capture technology. This real time-based technology recorded 3D locations of reflective markers where its applications range from reproductions in animation, digital library, and edutainment purposes. This quantitative research approach of using digital data in motion capture adds another dimension within our concern on the appropriate paradigm for this study. Due to the need of integrating qualitative and quantitative approach to answer research questions of this study, mixed-method methodology is the most appropriate for our endeavor.

Mixed-Method research design is regarded as the third approach within the social sciences. The other two being, qualitative and quantitative design; which have been utilized much earlier within the social science community (Teddlie & Tashakkori 2009: 11). The approach combines aspects of qualitative and quantitative approach through the integration of statistical and thematic data analysis (*ibid.*: 14). It is often associated, although not necessarily, with the philosophy of pragmatism where the central discussion revolves around a pragmatic approach to answer research questions (*ibid.*: 14). While qualitative and quantitative research centralizes on the sense of finding the ‘truth’, mixed-method research is based on pragmatism as its philosophical drive focuses on a practical approach in answering research questions. The classic Pragmatism as a philosophical tradition originated in America after the period of civil war around 1870 (Legg & Hookway 2020). According to Cornel West, its early foundations were laid by Charles Sanders Peirce (1839 - 1914) and William James (1842 - 1910), later influenced by the Ralph Waldo Emerson’s (1803 – 1882) theodicy and his evasion from modern philosophy in the mid-nineteenth century (Legg & Hookway 2020 and West 1989: 43). The focus of Peirce’s pragmatism centers on scientific method where its three fundamental claims are as follows (West 1989: 43):

1. Scientific method is the most reasonable path to arrive at warranted and valid beliefs.
2. Together with functioning habit (i.e beliefs, doubts), scientific method is a self-correcting and communal process where its objective is the settlement of opinion.
3. The truth within the scientific quest is linked but should not be reduced to the pursuit of developing concrete reasonableness.

Despite James and Peirce’s shared attitude towards Emersonian evasion on epistemological-centered philosophy, their discussion on pragmatism centered around individualism and moral lives where preference on adherence to a certain vision and way of life is the motivation of discourse (West 1989: 55). Another significant contribution in the development of classical Pragmatism was made by the second generation of pragmatist namely John Dewey (1859 - 1952), who was regarded by the West as the American Hegel and Marx due to his articulation on pragmatism and engagement (*ibid.* 69). This is clearly seen from his early writings that exhibit Hegelianism, although his philosophy evolved throughout his career to include influences from the natural sciences

years on (Bacon 2012: 82). Legg & Hookway on the other hand saw Dewey's expansion of influence particularly towards politics, education, and other social improvements, together with his friend Jane Addams. Addams later won the Nobel Peace Prize in 1931 through her invention of social work stemming from pragmatism philosophy (Legg & Hookway 2020). During the third generation of pragmatists such as C. I. Lewis and W.V. O. Quine, some influences of analytic philosophy were seen due to the decline of preference on Pragmatism over analytic philosophy as the US moved into the cold war (*ibid.*).

After the 1970s, Pragmatism again received attention and Richard Rorty (1931 – 2007) was among the contributors of this period where he turned to pragmatism and critically argued the mainstream's epistemology that saw language and thought to represent the real world (*ibid.*). His contribution towards pragmatism led to the birth of neopragmatism of which recent philosophers such as Hillary Putnam, Robert Brandon and Huw Price received its influence. However, other contemporary pragmatists or referred to as New Pragmatists such as Susan Haack, Christopher Hookway and Cheryl Misak had critical views over Rorty's neopragmatism and sought to classical pragmatism notion on objectivity instead. While Rorty's neopragmatism stands on the affirmation that there is no truth or objectivity but solidarity within a community, she argued that truth is crucial in human debates and inquiries, without which there could be discourse at all due to the absence of disagreement and conversation (Cheryl Misak 2007: 1-5). Thus, Misak's objectivity or truth is only a means towards inquiry. The pillars of new pragmatists according to her are given as below (*ibid.*: 2-4):

1. Standards of objectivity evolve, and this ontological nature does not detract itself from its own objectivity.
2. Knowledge has no certain foundations.
3. Keeping philosophy connected to its practicality for inquiry, real examples, or expertise.

Indeed, these critical discussions and differences of opinion among pragmatists caused some of the commentators to regard pragmatism as having no single doctrine or tradition at all (Bacon 2012: 31). However diverse pragmatist might be, pragmatism approach and application for this study is undeniably crucial for us to adopt in answering the inquiries listed prior. Previous adoption of ethnography as research design had

enabled us to access the information on Mak Yong. Due to the constant use of similar approach in research design, we are now left with the dilemma of discontinuity in data obtained. Thus showing one of the disadvantages of using ethnography over multiple case studies across several periods. If we are keen to use the same ethnographic research design to answer these inquiries on the discontinuity of data, it will be problematic to address as the community's memory has its own limitation in relation to the period of data originated. While certainly the use of ethnographic paradigm will paint us the picture of the subject under study and their social construct, it may not be practical to connect the data obtained from the subject under study with earlier ones.

Our attitude towards ethnography as an approach in understanding Mak Yong is not dismissive. Rather, it is a critical view towards its practicality in answering the question on the nature of an evolving cultural subject. In a simple instance of viewing Mak Yong from the future perspective (i.e 100 years) and looking back to current state in the year 2021, how can we assess the ontological questions of Mak Yong if the present data that we currently have to be the absolute truth? It will be counterproductive to what we initially aim to achieve and most unpragmatic. In consideration of approaching Mak Yong, we could not totally disregard the contribution of ethnography for the benefit of answering our inquiries regarding the subject matter. Rather, the supplication of another method that has yet to be utilized thoroughly in this area of research in Malaysia, should be done and assessed. Our concern now lies within the paradoxical duality in paradigm that separates motion capture and ethnography approach in research. While ethnography is often regarded as a research method for qualitative-driven research, motion capture that produces numerical result and statistical data is in the opposite camp. It is a quantitative-driven research that uses positivist paradigm. The debate and argument between qualitative and quantitative-driven community within the social science is exhaustive over the last four decades (Teddlie & Tashakkori 2009: 20). It is not the intention of this study to further revisit or explore these long arguments. On the contrary, this polarity will hinder us in answering our inquiries and thus we should address these concerns before proceeding to map our next course of action. The reason that causes this hindrance is due to the incompatibility of epistemology that is often associated with these approaches. However, these paradoxical and incompatibility had been addressed by scholars through pragmatism paradigm such as Peirce, James, Dewey, Rorty and Haack as demonstrated by Johnson et. al. (2017).

The roots of discussions within pragmatism focus on the nature of inquiry before an approach could be developed. Thus, rather than driven by assumptions on truth and reality of the world as with quantitative or qualitative-driven paradigms, pragmatism addresses the approach that is best suited with the nature of inquiry. Peirce in ‘Popular Science Monthly 12’ (Peirce 2014: 141), provided a guide which is later regarded as pragmatic maxim—the first task prior to any inquiry is determining the conceptions being used,

*“Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object.”* (Peirce 2014: 157)

Peirce regards science as a social and democratic journey to truth where players within the system (the researchers, groups, or communities of scientists) bring together their personal experience, thoughts, knowledge, doubts, beliefs, etc. (Johnson et. al. 2017). Thus, these activities will inevitably bring different approaches towards achieving to answer the same problem despite admitting that that is not usually the case. We can summarize here that Peirce’s position within research inquiry focuses on the importance of addressing the nature of inquiry, understanding the context first and foremost while applying any necessary scientific tools to answer the problem addressed beforehand, without disregarding the scientific process as a communal effort. Perhaps, what we can apply from pragmatism paradigm in this study, given the epistemological concerns on previous mono-method approach, is the attitude towards inquiry adapted by Peirce (Peirce 2011: 91), Dewey (Dewey 1988: 56 - 57), Misak (Cheryl Misak 2007: 2-4) and Haack (1998). The discussion on inquiry as presented by these scholars through the pragmatism paradigm sees knowledge and science as a subject that is ever evolving, and the best approach is to be ready to respond towards whatever outcome in knowledge it represented. As mentioned by Haack that shadows Peirce’s views on inquiry,

*“A genuine inquirer wants to get to the truth of the matter that concerns him, whether or not that truth comports with what he believed at the outset of the investigation, and whether or not advancing the proposition in question is likely to get him tenure, or make him rich, famous, or popular. So, he is motivated to seek out all the relevant evidence he can and weigh it as fairly as possible, to acknowledge, to himself as well as others, where his evidence seems shakiest or his articulation vaguest, to go with the*

*evidence even to conclusions that will make him unpopular or that undermine his formerly deeply held convictions; and if the evidence begins to disfavor what he originally thought, he will change his belief, or the degree of his belief, appropriately.”*

(Susan Haack 1998: 11-12)

Through these views on the attitude towards inquiry, it is practical to adopt this paradigm to pursue answers for the inquiries stated earlier on. Our next point of discussion will address the nature of the subject before proceeding to the method of analysis suitable for the data obtained in this study.

#### *2. 4. 4 The Philosophical Foundation of Analysis*

##### *2. 4. 4. 1 George Herbert Mead's Philosophy of Social Behaviour*

Prior to addressing the method that we will utilize for this study, it is imperative to address the nature of the subject first. As we have already understood the position of Pragmatism towards an inquiry, our early steps towards understanding the subject is to address its nature. The first immediate concern in this regard is to understand Mak Yong as a cultural subject and tradition. While previous studies on Mak Yong employed an anthropological method to understand its form, our concern is to connect the outcome of this study with the previous recorded data to understand the development of this traditional performing art. Thus, while past studies managed to provide us with the descriptive account of the dance art, it does not concern itself with the problem of dysconnectivity of data accumulated over the years. In doing so, it managed only to understand the dance forms in a particular period of its history, but unable to explain certain historical perspective as it adapts towards the changing time. In order to address this, our foundation in analysis approach will look at Mak Yong as the product of social process in the community instead of separated phenomena. This in return will help us to address the relationship between the change within the tradition and the representation of the social process within the performance. By not separating the cultural subject and the social process, we will also have a better understanding on the nature of change within the tradition subsequently avoiding further dysconnectivity in the study of Mak Yong with its past documented data.

The philosophical paradigm that will assist us in understanding this matter will need to address the creativity elements within the social action and how the changes occurred within the community. While there is a possibility that a creative individual might propagate a change within the tradition, we need to understand its mechanism on how it is inter-related within the social process between different members of community that would allow this change to happen. Because when an idea of change is expressed by one of the members of a community within the creative process, how can it be that the whole community agrees to it? Especially when it comes to a strong cultural subject such as dance tradition. There should be a mechanism within the social process that would further translate an idea of change from an individual in the community into a tradition. The connection between the individual and the community can be understood through George Herbert Mead's philosophical groundwork in social behavioral theory.

As one of the important figures in American pragmatism, Mead's work provided the important foundation to symbolic interactionism paradigm and early works on social psychology. While his roots in pragmatism laid down the philosophical framework, the German study in psychology provided him with the idea on 'gesture' in human communication, of which he would later extend. Among his work, the one that is important for our philosophical foundation in the analysis is his discussion on the topic of 'self' or human consciousness in 'Mind, Self and Society' (1934). His argument begins from a pragmatist point of view with looking at meaning as a respond from an individual through their organized attitudes and its connection with temporal elements such as adjustment of the current respond to the next one. These habitual responses creates universality or in his logical terminology as 'universals'. While the stimuli that cause the reaction in the response can be different, the universality affects the behaviour in the identity of the respond (Mead 1934: 125). In his perspective, he sees response as universal in nature while the stimuli are particulars as they interact with one another. One example that we can think of is in the activity of a man who wanted to cash out money from the bank. While money is the stimuli in this particular example, the respond will reflect the attitude of the person whether or not he will decide to take the bus, drive in a car or ask someone to pick him up and drop him at the bank (*ibid.* 1934: 126). Through the understanding of this respond – stimuli relation according to Mead, we are able to understand in terms of 'substance' to its 'attributes' (i.e, house is substance and its colour is the attribute). This is important in the discussion of human consciousness, as humanity



is able to differentiate different objects around them and organize these objects in terms of their relationship with the object. The concept of house for example, can be differentiated with the material that builds them such as concrete, sand, stone or wood.

Mead's approach in finding the philosophy of meaning behind human interaction is not concerned on solving metaphysical problems or logical problems (*ibid.* 1934: 127). Instead, he is looking at ways to understand them in terms of psychological perspective. His approach to meaning is looking at them in relation to the attitude of the individual and their state of mind, befitting of his philosophical influence from pragmatists such as William James. In his perspective, humans derive meaning through the organization of responses with the objects within their environment. Thus, the world is revealed as they look for one response before going to another (*ibid.* 1934: 129). This stance is similar to the concept of 'end-in-view' by Dewey explained by Joas (Joas 1996: 154). Thus, meanings attached to objects are the reactionary relationship between organism and their environment while meaning in social environment is defined by social activities. It is worth to note that both the environment and organism are active elements that influence each other in giving meaning where it did not exist before. Henceforth, meaning is the attempt by humanity to control and manage their relationship with the environment, which results in the ability to communicate and the creation of language. This is also the sign where the mind emerged according to Mead, as the organism is able to derive meanings, to show it to others and to themselves as well. To Mead, the mind is a social phenomenon, rather than individual (Mead 1934: 133). Reflexiveness is also another important process in regards to the development of mind, as the organism adjusts their attitude in reference to other individuals within the community. This makes the development of the mind an evolutionary matter as it comprises of individuals, environment, and the adjustment of the self towards these relationship in deriving meaning and responses. Thus, each generation brings its own experience towards the social development as they respond towards different elements as compared to their predecessors, resulting in inevitable change over time.

These philosophical foundations create the basis of Mead's further theories in social psychology, especially in regards to his important work which are the concepts of 'Self', 'Me', 'I', 'Generalized Other' and 'Play & Games' where it was thoroughly discussed further in 'Mind, Self and Society' (1934). In building his argument on the

basis of the concept of 'Self', Mead approached it by addressing his dualism perspective on mind and the body. His focus of discussion centered on the perception of oneself as an object and to be conscious, one must see themselves as an object. This allows individuals to see themselves in relation to others' point of view in the socialization process in the development of the self. Within the development of the self, reflexiveness is an important element that individuals use to reflect their responses or as they think to prepare themselves in the social process. As we are communicating, we reflectively think of our own action in relation to other responses, to revise or continue within the pace of communication as a way to control ourselves like an object. It is through the social process that the self will emerge after encountering a social experience in relation to other responses. Thus, it is normal that there are multiple personalities as we deal with different individuals and various types of responses through the social process. But, generally there is an idea of a general unified self within each individual.

Mead further elaborated the respond and stimuli as the path towards human communication (*ibid.* 1934: 140 – 141). Subsequently, this creates language as a human socialization process by constructing a generalized response towards a certain stimuli. Prior to the creation of language, human communicate through symbol or images where it is universal in character, as it needs to invoke certain response from other individuals in the community. The discussion within this area of his philosophical stand stems from the influence of German philosophy on the topic of gesture in social psychology. It is an important part of his argument as it leads to the discussion of the genesis of the self through the activities of 'Play' and 'Game', in human social development within an individual. The factors that influence the genesis of the self are represented by the activities of 'Play' and 'Game' by a child (*ibid.* 1934: 149 – 154). A child, according to Mead will engage in a play where they will learn the role of people around them, especially their parents or guardians. At this point, they are not able to comprehend any rules or restrictions in regards to the role that they take until they are old enough to participate in the 'Game'. Through the 'Game', children will understand the different responses that they will receive after taking on a specific role, and at the same time they will understand the impact and the relation of their position with the rest of the group. To better understand this idea, we need to look into children's observational behaviour during competitive games such as sports. For example, in football, children will learn the importance of their position in relation to other members in their team while considering

the environmental factors and also the response of the opponent's team. While in the 'Play' phase, children may not realize this. But during the 'Game', children will organize their responses in relation to the responses made by their team members to achieve the objective of the game. As discussed earlier, the organizing responses is important in the genesis of the self, therefore Mead concludes that the self arises under three processes which are 'Play', 'Game' and language. Through the genesis of the self, we understand the integral mechanism behind the construction of individual's consciousness in Mead's approach that mainly concern the influence of a group towards the individual. Therefore Mead sees the social group preexisting before the self. As the community plays an important function in building the self in each individual, another important concept introduced by Mead, which is 'Generalized Other', is the continuation of this approach (*ibid.* 1934: 154 – 158). This concept basically can be understood as a community or social group that gives the individual his unity self thus the attitude of the individual can be said representing the whole community. As Mead had an interest in the relationship between the man and their relation with the environment, therefore to him, objects regardless whether their animate or inanimate within the man's environment can form parts of the generalized self of an individual. The generalized other is also a mean where the community could seek control of the individual within the group in terms of social conducts and social interactions. Through taking the generalized other towards the self, then a general or universal discourse could exist where social meanings is possible. In turn, the individual will use the social attitudes of a group that they belong to in dealing with any issues.

While the concept of the self, 'Play', 'Games' and 'The Generalized Other' deals with the construction of consciousness within an individual in relation to the objects of their environment, there is another dimension within Mead's approach towards the thinking process of individual within the group. While previous concepts helped us understand the foundation of the self in an individual, the concept of 'Me' and 'I' enlighten us with the process that concern with individual action in relation to the group or community that will inevitably affect the overall dynamics of the social group. The 'Me' can be defined as the organized set of attitudes of others, which an individual assumes (*ibid.* 1934: 175). Meanwhile the 'I' can be understood as the response of the organism towards the attitude of others (*ibid.* 1934: 177). While the characteristics of 'Me' can be of certainty in an individual action, the 'I' has an element of unpredictability

attached to it. The 'Me' however contributes to the form of the 'I' but the 'I's' responses are novelty. In social dynamics within a community, the 'I' is the impulsive conduct while the 'Me' is the social censorship that controls the expression of the 'I'. In the case where expression can be done beyond an organized one, it therefore reflects the absence of social control. However, an act that goes beyond an organized one is not necessarily a selfish action, but it can be due to the identification of the self with the group's values. Due to the overwhelming sense of such attachment, then the individual proceeds to act beyond the organized attitude for the benefit of the community. Such act can be seen as the disintegration of the self due to the overwhelming sentiment of attachment towards the group they belong to. There is also a possibility of exciting or gratifying experience attached to such act as such self-expression will lead to the reward to the self. Therefore, Mead sees this also as the mechanism for the emergence of higher values. It is the discussion in this particular area that will be the most beneficial for this study to understand the mechanism behind the emergence of change in a tradition or culture.

Within the discussion of the 'I' and 'Me', Mead adds a creativity dimension towards the discussion of social dynamics in a social group that further enlightens us with the idea behind inevitable change in the community. From his perspective, the 'Me' acts as the representation of the values in the social group (*ibid.* 1934: 176). Meanwhile, the impulsive nature of the 'I' is both spontaneous and incalculable but at the same time is connected to the 'Me' that open its door in the first place. Therefore, under extreme condition, it can call out the degradation or sacrifice of the self from the individual for the benefit of the group. These responses cannot be anticipated but the individual connects it to the adaptation with their environment as stated in his quote:

*“The response of the “I” involves adaptation, but an adaptation which affects not only the self but also the social environment which helps to constitute the self; that is, it implies a view of evolution in which the individual affects its own environment as well as being affected by it.”* (Mead 1934: 214)

Thus, Mead connects the environment as one of the important key elements towards social change or evolutionary process within the society. He also agrees to the idea of random mutation within the society in terms of individual behaviour that propels the change based on this argument. The degradation of the self or the integration towards achieving change for the benefit of the community cannot be anticipated but will emerge

in the time of extreme condition. In the case of a genius or an important figure within the cultural change for example is one of the good case studies for such occurrences. Certainly, without a doubt these cases are not frequently seen throughout history, but we also understand that the attitude of such individuals are connected to the values held by their communities and with the society's response towards their environment as well. The understanding within this area of philosophical idea will help us in analyzing the cultural evolution phenomena of Mak Yong in different areas of Southeast Asia. These concepts will not only help us understand the change within the social dynamics of a community or a group, but it is also in line with the Cultural Evolution theory and Hans Joas' philosophy of creativity in social action that we will discuss later on. In the analysis of our fieldwork and its connection with the previous data, we will investigate the occurrences of social change within the tradition that could open the path towards the evolution of the Mak Yong form and why the traditions differ in various localities. We will connect this with the analysis on the opening dance of *Mengadap Rebab* as well as to look for the response between the choreography with costumes or paraphernalia in the tradition. Mead's approach will help us understand the construction of different style of Mak Yong's tradition in relation to its community and environment. The paraphernalia used in the performance can also be regarded as the objects within the environment that also play a role in calling out responses for individuals in the community and further construct the self of every individual as discussed by Mead in his approach.

#### 2. 4. 4. 2 *Hans Joas' Theory of Creativity in Action*

We have so far understood the importance of pragmatism as a philosophy for the foundation of our methodology in this study. It allowed us to approach the inquiry, the nature of data and the nature of change in the tradition that resulted in the dysconnectivity between various studies done earlier on. Mead's philosophy will assist us in analyzing the discontinuance of data in Mak Yong while complimenting the cultural evolution as the foundation of methodology in this study. While Mead's approach helps us to understand the formation of consciousness within individual and the connection between the environment, the individual and our reactionary action towards change, Hans Joas' theory on the creativity of action will further expand the discussion by Mead to focus on the aspect of change in social action. Joas' approach in his book 'The Creativity of Action' (1996) does not intend to introduce a new type of action but his discussion focuses on

the dimension of creativity in social action or action theory (*ibid.* 1996: 145). To begin his approach, he proposed a reconstructive introduction of the concept of rational action where the theories of action is based on. The three assumptions are:

1. The presupposition of actor as capable of purposive action.
2. The actor has control over his own body.
3. The actor has autonomy via other individuals and the environment.

His added creativity dimension in human social action discussed the intentional character of human action, the specific corporeality and the primary sociality of all human capacity for action. These were added to each of the assumptions made by the main theories of action.

#### *2. 4. 4. 2. 1 Situationality*

In the traditional view of philosophy of action, which centers on the means-end schema, it implies that goal-setting is part of the process that precedes the human action. Therefore, in having this perspective, it implies that the cognition within human capability to construct goal-setting is part of human action. However, the teleological interpretation of intentionality of action proposed by Joas sees cognition as separated from human action (*ibid.* 1996: 157). What he tries to imply is that the intentionality which includes intentions, motives and values as having its own internal world that could affect the external one in a separate conscious act of decision. The new understanding of goal-setting from this approach also implies that it is both corporeal and not purely intellectual faculty. Thus, in goal-setting itself, it needs to consider the corporeality of human action and its creativity, which means that perception and cognition is considered as phases in action where the action is directed and redirected, depending on the situation. By this virtue, goal-setting takes place as a result of a reflection on the pre-reflective and ever actively-operated aspirations and tendencies. The aspiration mentioned here are the human body's capabilities, habits and ways that are connected to the environment.

What Joas is trying to explain here mirrors what has been said by Mead in his approach as well; where there is connection between human action with the environment through the reflection of their capabilities, experience and the given situation (*ibid.* 1996: 158). Within the same area of discussion, extending Mead's approach, our perception

towards the world according to Joas consist of our capacities for and experiences of action. Thus, our relation towards the world is revealed to us in the form of possible actions in relation to our body's ability (corporeality) even when we do not intend to act any immediate reaction or response towards it. Due to this, we tend to categorize the world according to the construction of reality in relation to our corporeality, whether it is accessible – inaccessible, familiar – unfamiliar, controllable – uncontrollable, responsive – unresponsive, etc. This means that the situation itself does not contain neutral field as it is also made out of our perception towards it in relation to our experience and capabilities. This is also where Joas mirrors Mead's approach where the environment and action influence each other but where Mead is concern, Joas added another element that has not been discussed prior, which is the corporeality as a point of limitation to an array of possible actions.

The final discussion regarding the situationality in Joas' theory on creativity of action deals with the impulsive nature of creativity and its connection with the aspiration and success. His interest in the discussion lies in the concretization of the values and the satisfaction of needs, as it is dependent on our ability to exercise the power of creativity (*ibid.* 1996: 163). Therefore it is not merely interplay between values and impulses in a creative action but rather by the creative concretization of values and the constructive satisfaction of impulses. The aspiration acts as the motivation, or the catalyst towards this concretization of values and fulfilling the impulsive element within the creativity itself. In comparison with Mead, he did address this nature through the concept of 'I' as the impulsive and unpredictable element in human action, but Joas added in the discussion this idea of aspiration that propels the creative human action. Joas also implied that the values and ideals of successful personality and communities is also connected to this aspiration as well, as it is regarded as part of the assessment. Here we could see that the argument given by Joas is closely related to the concept of cultural adaptation due to biases in cultural evolution theory.

#### 2. 4. 4. 2. 2 *Corporeality*

Within the discussion of corporeality, Joas prompted previous discussions on human body in action theories that were confined only within the margins of sociology. He insisted that in order for action theory to defend itself against critiques, it is important for it to consider anthropological approach on human body (*ibid.* 1996: 167). This is due

to the fact that through confining them within sociology, the discussion of human social action only centers around culturally specific or gender-based, action-oriented relations to the world, instead of establishing universality approach as it claims to be. Another reason on Joas' disagreement in adopting this tacit assumption on body in action theory is because of the problems with associating the body to an instrumental role (*ibid.* 1996: 168). He argues that the action theory needs to not only consider the ability of the actor to control the body but also the ability to ease or relinquish of the said control on the body. Moreover, Joas argues upon the unclarified areas within previous action theory which are the biological preconditions for the possibility of human action and secondly, the development of ways that the body is subjectively presented to him.

In addition to having an anthropological foundation to address these issues as part of the attempt to reconstruct the introduction of tacit assumptions, Joas also proposed the reconstruction of the constitution of body schema. To support his argument, he took several works by previous scholars such as Arnold Gehlen, Konrad Lorenz, Paul Schilder, with a particular attention to Maurice Merleau-Ponty and George Herbert Mead. His intention in the argument is to imply the preconception of human consciousness before the instrumentalization (or the ease of control) that came before them (*ibid.* 1996: 169). He tries to point out that within the discussion on element of corporeality in theory of creativity of action, it is necessary to begin our discussion in the right direction by firstly taking the non-dualist approach to construct our understanding on the role of body as an important element in the process of social action. Furthermore, he adds that the expansion on this discussion should not only elaborate on the ability of the actor to control or ease the instrumentalization of their body but also on the preconception mechanism prior to the process. Additionally, if the corporeality of the actor is present only through body schema rather than directly, then the ability to act further will rely on another tacit assumption, which is the primary sociality. This tacit assumption that we will discuss further in the next section is connected to the intersubjectivity process that constitute the body schema in the first place.

#### 2. 4. 4. 2. 3 Sociality

In the discussion on the third and final tacit assumptions of the creativity of action theory, which is sociality, Joas proposed first to replace the individualism approach in social action theory. The individualism approach in social action theory according to Joas



stemmed from the western culture of individualism (*ibid.* 1996: 184). He further adds that even within the social sciences, only the economics adopted the principle but only going as far as using it for a methodological starting point. Other disciplines such as Marxism, Pragmatism or Hermeneutics directly opposed the idea. Among many disciplines that Joas used as part of his argument within the discussion of this tacit assumption, such as works done by Max Schiler and Hegel, he focused on the work by George Herbert Mead that would support him in reconstructing the introduction of the autonomous ego into action theory. Through Mead, two ideas within the discussion of sociality are important. The first can be understood as the formation of identity through the ability to take roles and secondly the approach of social action from non-individualism perspective. We have so far discussed these works by Mead through his concept of 'The Self' and its construction in the previous section of this chapter. However, Joas further extended the discussion by urging the need to employ this approach as a foundation for rational action theory specifically for the application within the social sciences to avoid the individualism approach of the past (*ibid.* 1996: 1990). Furthermore, he added that the ability of act does not occur once but needs to be refreshed periodically, which will arise through temporary retraction of the actor's symbolic ego boundaries via their environment.

The next discussion made by Joas is on the discussion of overcoming the self or the ego made by Durkheim that is quite similar with the discussion of the 'I' and its impulsive response characteristics (*ibid.* 1996: 192 – 195). Durkheim centers his discussion around the phenomena of totemic rituals among the Australian aboriginals where the 'sacred' and 'profane' can be understood as 'Me' and 'I' in Mead's discussion respectively. While the sacred is important in terms of social relation, the rituals invoke the profane within each individual in the community to experience something that makes them lose their own self. In having these responses, each individual produces unique reactionary action instead of abiding themselves with the sacred of the community. What we can conclude upon the discussion made by Joas here is the tacit assumption of sociality is that he is interested to expand the basic foundation in discussing the individual's autonomy within action theory. Based on the work done by previous scholars especially by Mead, the individual's autonomy is constructed through the formation of the self or the ego during socialization. The second part of the discussion within this tacit assumption, is Joas' elaboration on the dissolution and restabilization of this ego that

would propel an individual to go beyond one self, resulting in a reactionary response that goes beyond one's ego boundaries.

We have seen thus far within this particular section of this chapter how Pragmatism as a philosophy is inherently important for the foundation of our methodological approach to this study. Its philosophy is not only important in constructing the multidisciplinary approach to answer inquiries within this study but also to understand the changing nature of cultural subject such as in the traditional performing arts. By looking at the effects of a subject as per the recommendation from Peirce in his writing, Mead further extended the application within his social behaviourism theory while Joas reconstructed the tacit assumptions in social action theory. Furthermore, the application of pragmatism as the methodological approach in this study goes hand in hand with cultural evolution theory, as it will supplement our understanding in observing the data pattern within a cultural subject. Our next task is to connect this methodological approach with the descriptive contextual work done on the subject of Malay traditional art's aesthetic and on the study of Mak Yong and Malay performing arts in general in order to fully integrate all past and present fieldwork data. This will help us produce a comprehensive understanding on the cultural evolution of Mak Yong and some parts of its historical narrative.

#### *2. 4. 5 The Foundation of Method and Approach*

Due to the reasons mentioned earlier on, it is imperative that this study shall use pragmatism, Mead's social behaviourism theory, Joas' creativity of action theory, cultural evolution theory, together with Malay aesthetic theory as its methodology of data analysis. These analytical approaches were chosen due to the nature of the inquiry presented as part of the objectives that intend to be answered in this study. The first being the nature of subject being studied which is Mak Yong, a Malay performing art tradition. As we try to make the analysis based on the symbolic meaning behind *Mengadap Rebab* dance through the data obtained from motion capture, we need to consider the aesthetic of choreography behind the dance, which can best be understood through Malay aesthetic theory. Within this aspect of analysis, we analyzed the dance in relation to its function within the spiritual healing conventions and secondly the Malay aesthetic beauty and symbolism.

The second nature of our inquiry explored the characteristics of change within the tradition that could possibly influence *Mengadap Rebab* dance sequence. The issues addressed earlier on focused on the connection between the use of accessories and how it could also contributed to the choreography of *Mengadap Rebab*. While we are interested in analyzing the probable cause of the connection, we are also interested to investigate the change within traditional performance and observe the probable connection with the impact brought using accessories or costumes. In this sense, there is a possibility that we could also address issues of change in Mak Yong data obtained during the pre-independence Malaya and post-independence Malaysia. Cultural Evolution theory as suggested earlier will be an important key towards our understanding in this area. As suggested by Mesoudi (2011: 54 - 55), Cultural Evolution theory, influenced by Darwinian ideas on evolution could help us not only to analyze the change within cultural tradition but also integrate the overlapping conceptual framework within the social sciences. Our intention on utilizing this theory is to integrate the understanding of cultural evolution in Mak Yong, particularly for *Mengadap Rebab*'s opening dance and how aspects of costume and accessories will affect the choreography and the evolutionary process within the tradition. Bridging the understanding between these approaches, we will integrate our understanding on the analysis of motion capture focusing on the nature of two main inquiries. The result of this integration of analysis will inform us of the interaction and connection between the impact of costume and accessories on the cultural tradition with the symbolic aesthetic meaning of dance movements. In order to understand the phenomenon within the fieldwork, we analyzed and integrated the data using the approaches of both Mead and Joas to further understand the construction of identity in Mak Yong tradition and how the environment and community propeld the change across different periods of time. It is also intriguing to assess the relationship between cultural response towards change within the tradition through the interactions with important features of a tradition such as costumes and accessories with its environment and community. This will result in a unique social construct perceived or inherited by members of the Mak Yong community.

Before we proceed to the next section, we will discuss the final objective of this study, which is to investigate the viability of using motion capture as a possible approach for future traditional performing arts studies. In this regard, we will consider external validity of using motion capture in performing arts studies by selecting another type of

traditional performing arts that is not directly related to Mak Yong or to any Southeast Asian traditional performing arts. Based on the previous number of studies on motion capture, we will consider the Japanese Noh and compare its motion capture data to that of Mak Yong. The connection between its contextual information regarding the culture including its costume, accessories, stage size and other related data would be considered to have better comparable data. This approach will test the validity whether the determination of connection and impact between accessories, costume and other related contextual data can be seen in the dance choreography through motion capture data. Given the time and opportunity, it is better to have more sampling using other types of traditional performing arts as our data for analysis and comparison. However, for a more focused study, we considered data from only two traditional performing arts. At the end of this study, we assessed whether it is worth pursuing and extending the sampling to other types of traditional performing arts in the future. To summarize the theoretical framework for this study, below is the figure that represents the important conceptual approach in our study. In the next section, we will discuss the method used in this study to acquire the data for further analysis.

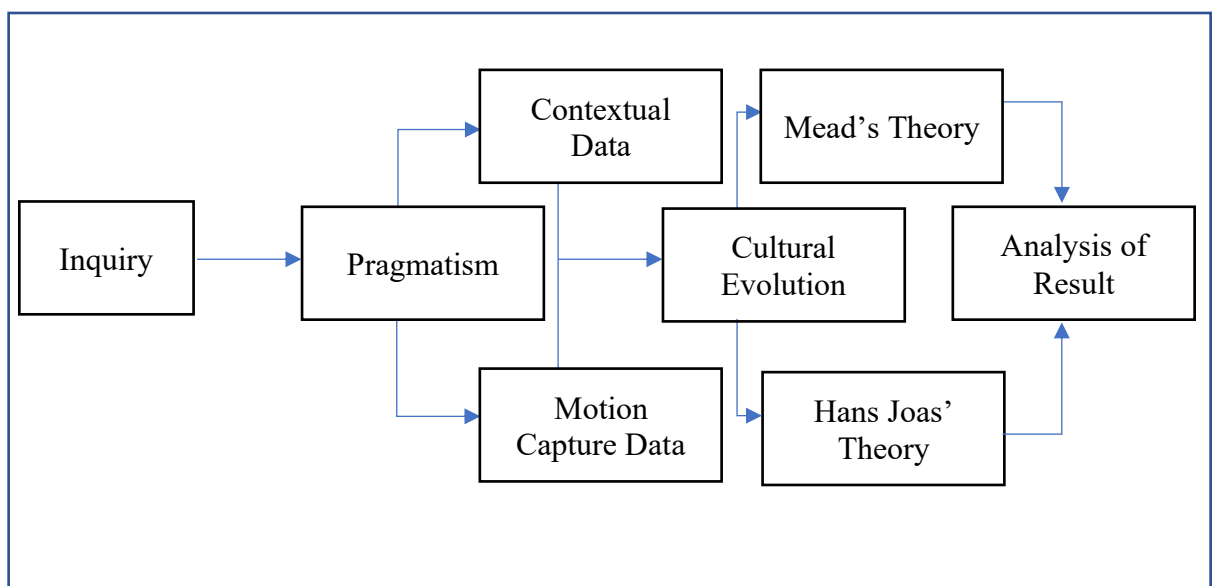


Figure 1 The theoretical framework

## 2. 5 Method of Research

The method employed within this research reflects the methodology discussed in the previous section which is the combination of both qualitative and quantitative

research approach. This study is divided into two phases; first is the ethnographic approach as the initial step to understand the context of the subject, while during the second phase of motion capture sessions, experiments were conducted in a controlled environment. Before our analysis could be done, it is also important to focus on how knowledge is being passed down within the Mak Yong community in a real setting to understand the process of learner's acquisition of knowledge on Mak Yong's body language and movements. This is crucial as during the motion capture session, the subject being recorded is not from the Mak Yong community but the researcher himself. We will consider and assess the impact of using this approach for this study as a means to review and reflect whilst avoiding any unaddressed biases that would discredit the recorded results and analysis. To look into the pattern of movements for both of the traditional theatres, motion capture will be used in order to achieve a better result in analyzing the physical and dramatic movements of these two traditional theatres. We will now proceed to the list below which represents the flow and method of research employed for this study.

#### *2. 5. 1 The First Phase: Ethnographic Works*

1. Conducted literature review on Mak Yong and Japanese Noh theatre. Special focus on a specific topic regarding the literature of both performing arts are of concern such as the philosophy behind the art, any previous research regarding body movements, body aesthetic, dance aesthetic, dance analysis, knowledge transfer and other basic important knowledge regarding the art such as terminology, conventions, structure and belief system. While these are the core focus of our literature review, it is also important to understand the social contextual settings of both art forms. Thus, learning the historical and social settings of both performing arts is vital for this study to understand the ontological aspect of these performing arts. Learning the core aspects of this study will help us to understand and analyze the result. The historical and social aspects allow us to understand the environment which invokes such evolution within the tradition to occur. This resulted in the creation of these performing arts that become part of the identity and culture of the community under study.
2. Interviewed members of Mak Yong and Noh community to further understand the basic concepts of each performance from their own personal perspectives. For

Mak Yong, several members of the community were interviewed in various stages of this study as there had been instances where clarifications were needed. A special focus was given on Mak Yong community members in Raman, Yala, a province in Southern Thailand. This is because the Southern Thailand community were given less coverage in previous research on Mak Yong. For Noh, several members of community were contacted mainly Master D, Master A and Master B from the same school, Master C of different school.

3. Besides interviews, other ethnographic approach employed for this study included observation and the recording of Mak Yong and Noh performances through the schools or community that had been contacted. Sources for this observation were videos uploaded by various individuals and organisations on YouTube, live performances and workshops attended. If live performances were observed, this was followed by short interviews regarding the performance or anything related to the performing arts, assisted by translators whenever needed.
4. Within the three years of research on the subject, the ethnographic approach on the subject included learning the dialect and language of the subject under study. Due to the language barrier and cultural differences between the researcher and the subject, this approach is vital in order to learn the contextual settings of the performing arts under study. We will visit later some reflections on the scope and the limitations within the study to address some potential biases that arose during the course of the research. The difference between the researcher's identity and language or dialect used with the subject could help understand and hopefully improve the research method and methodology of this particular research area in the future.
5. Another important approach within this study is the participant-observation that was utilized to understand the performance from the perspective of the performer. This required the researcher to obtain the knowledge of the cultural subject from a reputable source. After participating in a survey on Raman Mak Yong community from southern Thailand, it became apparent that among the source of knowledge transfer between the older generation to the younger generation is through the introduction of the performing arts in spiritual healing of Main Puteri, which is closely connected to Mak Yong (Alfan 2020: 5 - 6). In some cases, these introductions may lead to invoking the interest of the patient to voluntarily learn

the art by themselves or traditionally receive the lessons from their elders. In the case of a Mak Yong community in Raman, one of the interviewee used the electronic media platform to learn the art without having to meet the masters constantly. Despite having this approach for early training, the interviewee still kept in touch with the community and they subsequently allowed him to perform together. Imitating this approach, the researcher decided to learn the *Mengadap Rebab* opening dance performance of Mak Yong through a shared YouTube video made by the students of Sultan Idris University of Education, Faculty of Music and Performing Arts. This was done prior to the motion capture recording session made on August 2020. This dance was chosen because of its importance within the Mak Yong tradition and is still being kept as a staple of Mak Yong performances despite subtle changes within the performance structure over the years. Without undermining the importance of other parts of Mak Yong performance, the research will take *Mengadap Rebab* as a sample that represents the essence of Mak Yong's body aesthetic and tradition due to its importance within the tradition.

6. On learning the art of Noh dance for this study, the researcher attended a Noh workshop held by Japan Foundation Kuala Lumpur, Malaysia located in Rimbung Dahan, Kuang, Selangor between 25<sup>th</sup> until 28<sup>th</sup> of February 2019. The workshop was instructed by two Noh masters namely Master A and Master B. The workshop aimed to share the basic of Noh performance to 16 Malaysian performing arts artists and performance artists from various backgrounds. The workshop introduced lessons on climactic Noh shimai of the 'Koukaji' and 'Hagoromo' story while for chanting the masters used the story of 'Takasago'. Another training session on Noh dance was done since August 2020 through the guidance of Master C
7. Master C was trained under the guidance of his father. Lessons learned from this engagement includes shimai from 'Oi Matsu' and 'Yuya'. During the course of the training, some aspects of Japanese culture and Noh art in particular were inquired to obtain a contextual understanding regarding various aspects of the training, Japanese culture, Noh art and other related forms of Japanese art that is related to Noh.

## 2. 5. 2 *The Second Phase: Motion Capture Recordings and Analysis*

8. After the acquisition of contextual data and the knowledge on Mak Yong and some aspects of Noh dance, the research proceeded with the second phase which was the capturing of Mak Yong and Noh dance through motion capture technology. Using Qualisys Motion Capture system with eight cameras, Mak Yong's '*Mengadap Rebab*' and Noh's '*Hagoromo*' Shimai was captured at Hiroshima University Graduate School of Integrated Arts and Science laboratory, supervised by Dr. Masahiro Shinya and assisted by Yuka Miura. The dance excerpt from Hagoromo or translated as 'The Feather Mantle' was taken as the subject for comparison with Mak Yong's '*Mengadap Rebab*' as the play was first mentioned in 1524 (Tyler 1992: 96). Despite the fact that it was probably written beyond Zeami's time, the year of its official record shows that the play is part of an old tradition within the Noh's repertoire. It is also regarded as the popular choice for an amateur Noh dancer. The story conveys the 'swan maidens' charm, a character's trait that is common in the world of folklore according to Tyler (*ibid.*).
9. Data collected in the study were transcribed and processed using proper tools and software. The recorded interview data were transcribed and extracted to seek important information vital for the study. The data from the motion capture system was processed using MATLAB pre-programming functions created by Burger and Toiviainen (2013). The details of this pre-programming and its application will be discussed further in the next chapter as we go through the data collection and processing stage of this study. The results of this data processing will be presented through charts and graphs as a function of time.
10. Using the micro-macro approach suggested by Golshani et al. (2004), data obtained from motion capture and processed through MATLAB programming software were analyzed and integrated with contextual data collected within the ethnographic stage. To look for the connection between accessories, costumes and aspects of performances with the choreography, we looked at the values presented in the graphs and charts obtained from the MATLAB programming, observing any correlation between the values of hand movements, in the function of lengths or distance over the function of time. Our prediction is that, the higher the distance over time for any given reflective markers on any part of the body



will tell us the significance of that particular part of the body. We connected the values on certain parts of the body to the accessories or aspect of costume important to that area. The next phase of our analysis looked into the Malay aesthetic theory related to the art of Mak Yong dance or any descriptive research regarding the symbolic meaning of the dance in the past in order to avoid any potential bias. The same procedure was done on data obtained from Noh's shimai to see whether such correlation could be established similarly. In the next step, Cultural Evolution theory was utilized in order to address any changes within the tradition in relation to the values of motion capture data result with the accessories and costumes currently used or was used in the past. Finally, we assessed and reflected on utilizing this approach in order to suggest some improvements for future research.

We have thus so far explored the methodology and method that was utilized for this research. Before we end the discussion on this chapter, let us address the scope and limitation of this study.

## **2. 6 Scope of the Study**

From our earlier discussion on methodology and theoretical framework of this study, we focused on answering our inquiries on Mak Yong which included interpreting data from the motion capture recording, relating it to the cultural symbolisms and representation, connection with the use of accessories and costumes and lastly the viability of using motion capture for future work in traditional performing arts in Malaysia. The method employed in this study had never been done in Malaysia, but its implementation was present in other locations such as in Japan (Hachimura 2006, Yoshioka et. al. 2012 & Wakita et. al. 2015). Albeit omitting the application of Cultural Evolution theory to explain the trend and characteristics of data obtained from the study. In other instances, the utilization of motion capture in cross-cultural studies produced an interesting insight on the connection of similar dance movement between two seemingly different dances from different geo-locations (Aristidou et. al. 2019). Thus, such an intriguing connection is what drove this study to look into these trends between performing arts and utilized Cultural Evolution theory to describe such nature. It is not

the intention of this study to construct or focus on a new novel way to extract motion capture recording data. Although such study is recommended in the future within the Digital Humanities research area. As such, we did not focus on the technicality of motion capture recording or the programming aspect of MATLAB, but rather applied these technology and software for the benefit of our study in looking towards the trend of dance choreography pattern while seeing the connection within its social and cultural background.

## **2. 7 Limitations of the Study**

The final part of our concern within this chapter is to address several important limitations of this study. This is to avoid any unforeseen biases that would jeopardize the credibility of results gained with this research. The wholeness of this study is that two distinct methods were used, namely quantitative and qualitative method. However, each of these methods arguably have its shortcomings, which is why both methods were needed in the first place in order to complement each other. Despite our attempt to reduce the errors during the acquisition of data, we can nevertheless undoubtedly find ourselves faced with limitations that would affect the data obtained. This was seen in the previous data extracted for Mak Yong where different reports in different time periods resulted in different descriptions on Mak Yong's convention and ontological perspective. While our concern was mainly on biases within the ethnographic data of this study, nevertheless we also addressed some human errors that could have impacted the acquisition of motion capture data during the recording session.

1. The impact of identity and origin of a researcher needs to be addressed in order to avoid the issues of credibility of data obtained in an ethnographic data. In this particular study, the researcher's origin is from the west coast Malay community in the Malaysian peninsula with a background of Javanese fourth generation immigrant. Thus, it is a different identity to that of the east coast Malay Peninsula where the community of Mak Yong artist originated. Different dialects used throughout the interview sessions by interviewees during ethnographic data acquisition were one of the challenges in conveying the meaning behind every questions asked.

Despite having these challenges, the researcher used his best effort to speak in the same dialect with the interviewees due to his previous exposure to the east coast dialect. Within the same issues, it is also best to address that the researcher does not come from the Mak Yong community itself and some questions during ethnographic interview might prove to be a challenge. Some concepts will need to be rectified using terms that is understandable for both parties. This is also the same with interviews involving Noh performers. However, to reduce the impact of these errors during ethnographic data acquisition, the researcher made an effort to learn the dialect and language with an additional knowledge on local social and historical context to the best of his ability in order to have a better communication with the interviewees.

2. Large portion of ethnographic engagement with the Mak Yong community in this study focused on the community in Thailand. Despite possible subtle differences, both Southern Thailand and east coast Malaysian style share similarities as they are still engaging with one another. Evidently this can be seen through some of the migration of Southern Thailand performers to Terengganu such as Kumpulan Mak Yong Matahari led by Che Ning (Ghulam-Sarwar 2018: 84). While we are eager to look into these differences in the future between those of Southern Thailand and east coast Malaysian style, we can regard these differences to be negligible for now as they shared similar identity and values despite operating on the opposite end of the Thailand – Malaysia border. In reality and most ideally, we could investigate the differences of each group originating from Kedah, Perlis, Sumatra, Kelantan and around Southern Thailand provinces.
3. Due to the impact of Coronavirus (CoVid-19) that struck globally since early 2020, there were difficulties in acquiring fieldwork data within the ethnographic stage. Thus, a longer period of ethnographic data acquisition or physical participant-observation could not be done as per traditional ethnographic approach. Despite these challenges, some efforts were made to connect with the Mak Yong and Noh artist communities through online video-conferencing and interviews using the current available technological software.

4. The time of data collection specifically on the ethnographic data phase was between 2018 to 2021. In order to avoid having the same mistake with our predecessors in presenting the viability of their data, we took note on the time period of which ethnographic data is presented. Given the recent change within Mak Yong's performance that is trying to adapt to the lift of the 28-years ban in Kelantan state of Malaysia, we predicted there could be subtle changes within the conventions of the performance and structure as it happened with its earlier form reported by Skeat around 100 years ago. While in terms of choreography, there is no way to predict how it would change in the future. It is hoped that efforts done in this study will spearhead efforts on recording intangible cultural tradition in Mak Yong with respect to dance choreography.
5. The data acquired through motion capture recording could not be done directly from the artists' own expressions and performance. It was done through the researcher's presentation of knowledge acquired through participating in workshops, private classes or from learning through electronic media due to the challenges face in managing the logistics caused by the pandemic. However, this had been addressed whereby the approach is intended to imitate the knowledge acquired by new members of Mak Yong and Noh community hypothetically. As the focus of the study is to acquire the pattern of body movements and aspects of choreography, it is sufficient to have the level of an amateur performance instead of a professional, as long as the choreography was performed well and completed as per the instructions from the source or the instructors. As of now, we shall have the reservation to acquire professional level performance in the future should the study prove to be viable for implementation in future traditional performing arts motion capture recordings.
6. It is worth noting that the performance captured through the controlled environment in a laboratory of motion capture will not capture the performance as it happened in the fieldwork due to certain circumstances. Firstly, the need to wear special reflective markers and attire during recording sessions could not be seen as normal circumstances. Thus, if real performers participated in these recording sessions, such environment

could have affected their psyche and indirectly affect the performance. Some adjustments need to be made, such as using only important accessories or costume that is practically needed for the performance. Secondly, the choreography will need to be adjusted according to the space given or availability in the laboratory. The area that is able to be captured by the motion camera might only be sensitive to a certain degree. Before a performance for recording can begin, the performers and the one who manages the recordings should discuss and have a few rehearsals first to avoid interruption and loss of data during a performance. Although this might reduce the scale of performance in terms of its physical dimension, nevertheless it does not affect the entire choreography. However, should the performance need to be scaled down by a large percentage, researchers should bear in mind of the impact that it could have on the data recorded.

7. Due to the time constraint in this study, we used a pre-programmed MATLAB toolbox developed by Berger and Toiviainen (2013) to process the data obtained from the motion capture as the main means of analysis. This is to have a more focused study where the discontinuance of data will be given the top priority rather than the technicality of processing motion capture data.

In this chapter, we have gone through the important aspects of this research which is charting the approach on answering inquiries regarding our subject of concern; Mak Yong. We have now understood some of the problematic discourse between various past ontological researches on Mak Yong due to some unforeseen biases and the notion where cultural subject is seen as possessing unchange nature. The fact that some features of accessories in Mak Yong performance is different than the one reported around 100 years ago by Skeat, this challenged the previous approach and perspective in research. It is more practical to approach on learning this cultural subject by employing different methods to complement some disadvantages using only qualitative or quantitative method in research.

To conclude, employing a theoretical approach of pragmatism that uses both qualitative and quantitative method is deemed appropriate to answer the list of inquiries mentioned due to the disconnectivity of data between different time periods of

ethnographic research on Mak Yong within one hundred years' time frame. Despite our proposed approach to this study, it is advisable that some aspects of focus and limitations are addressed to avoid unforeseen biases that would affect the credibility of the result obtained by the end of this research. It is also within the intention of this research to seek for internal and external validation, which is why it is important to assess whether the approach in this research is viable for future research on traditional performing arts in Malaysia. In the next chapter, we will discuss on data obtained within two stages of this research, which is the ethnographic and quantitative stage. Some aspects of technique and system used in the data acquisition that could not be shared within this chapter will be provided for future reference.

## **2. 8 Significance of the Study**

The study of Mak Yong on its dramatic movements is important as it helps us understand the signified cultural representation. In the process to construct the understanding through our literature review, we are now aware that there has never been an in-depth study on Mak Yong's dramatic movements using motion capture as an analysis tool in Malaysia. Extensive research covered the structure of the performance from its preparatory stage; the training and dramatic text or the story telling of the performance and its principles. What is required to enrich this field of study is to look at the micro view of Mak Yong's dramatic movements using quantitative method of digital technology while supplementing the ethnographic approach to understand the context of these dramatic movements.

Since the early 2000s, research on Japanese digital humanity took its initial step towards this direction through studies made by Kozaburo Hachimura in Ritsumeikan University around 2004. Hachimura's study digitally archived Japanese Noh theatre and other ethnic dances in Japan (Hachimura 2006). Through this digital archive study, he noted a few benefits gained from the process. One of the interesting reflections made by the respondent of Noh dance was that the digital data recorded in the dance can be used for their reference in order to observe and measure their own performance, especially when these dancers are subjected to natural ageing progress (Hachimura 2006: 52). Other than the direct benefit to the participating artists, Hachimura also suggested the utilization of motion capture in research for the purposes of edutainment by using a combination of motion capture data and simple 3D animation sequence. The use of CG animation can

enhance the understanding of the audience on Noh performances, as even the adults find it difficult. In terms of scholarly contribution, the use of motion capture has been useful especially for studies that require the combination of technological application, performative analysis and data management system. Due to the storage size data needed for this area of study, data management system is another pivotal study that requires a better management system in handling massive amount of data.

Through Golshani et al. (2004) and Aristidou et al. (2019) we understand that studies in big data management system on digital dance ethnography is ever growing with the progress of information technology. However, there is less emphasis on utilizing this approach for a contextual study of comparative studies. Aristidou et al. for example, commented on the similarities between the Egyptian belly dance and Xin-Jiang ethnic dance due to Turkic Uyghur people (Aristidou et. al. 2019: 16), without extending much of its discussion other than the data presented. Thus, despite the progress of technology enabling such research to be done, there seems to be no effort in explaining this phenomenon by the ethnographers as highlighted in the present literature review. This creates further distance between the positivist approach by digital dance ethnographers with that of the constructivist nature of the traditional dance ethnographers. While this study does not necessarily provide a novel approach in digital ethnography, it nevertheless will attempt to close the distance between both paradigms of traditional and digital ethnography. More importantly, through this study, it is hoped that more digital ethnography studies in Malaysia can be done in the future to supplement our understanding on the richness and various forms of ethnic and traditional dance within the region.

In order to achieve this, we have suggested the use of cultural evolution theory with a supplementary understanding of change in social action through George Herbert Mead's social behaviourism theory and Hans Joas' creativity of action theory. While the use of concepts in cultural evolution theory helps us understand the pattern of cultural change, Mead's and Joas' theory assist us in understanding the mechanism behind the change. This will enable our understanding of the connection of environment, socio-economic and cultural effects on choreography. Mead's theory of 'I', 'Me' and the 'Generalized Other' will provide us with the mechanism behind the change of tradition through individual acts. Meanwhile, Joas three tacit assumptions are important in

understanding the relational elements of human creativity in social action. The integrated approach of this analysis will cover the aspect that invokes the change in Mak Yong's tradition but without neglecting factors concerning the environment and other important elements. Therefore, using only cultural evolution, Mead's or Joas' theory is insufficient to understand cultural change through the analysis as each provides different perspectives. The same can be said with only using motion capture to understand the change within Mak Yong's tradition. Each element within the analysis tool will provide us with information on the mechanism behind cultural change.



## **CHAPTER 3**

### **DATA COLLECTION**

The concern within this chapter will begin with the earlier steps of our inquiry into the ethnographic fieldwork before moving on to the second phase, which is the motion capture laboratory work. As we had explored our options in the previous chapter regarding the choice of strategy to answer these inquiries, we will require the combination of both qualitative and quantitative research methods due to the lack of consistency from past studies. Before we begin to analyse the Mak Yong Mengadap Rebab dance choreography data pattern, we need to understand the nature of knowledge transmission within the community members. Having data analysis without context on its nature of knowledge transmission will be less helpful in discussing the cultural evolutionary process that is taking place within the community. Central to the discussion of cultural evolution analysis will mainly consider the quantitative data. Still, through motion capture data, we could only determine the connection between several elements associated with the dance movements, such as accessories or costumes, without including the discussion on knowledge transfer of the choreography.

#### **3.1 The First Phase: Ethnographic Fieldwork and Participant-Observation**

The first engagement with the Mak Yong community members begins with a retired lecturer from Universiti Malaysia Kelantan, Mr A in April 2019. This interview is essential to get preliminary data regarding several aspects of Mak Yong's knowledge inheritance within its players, including acting aspects of characters and the training style of the late Khatijah Awang. Other aspects covered in the interview included his doctoral research on several Mak Yong group's styles of management, aspects of performance such as dance movements in Mengadap Rebab and some thoughts on the differences between Mak Yong in Malaysia, Thailand and Riau from his experience attending the

SEAMO-SPAFA's Mak Yong Spiritual Heritage conference back in 2011 in Bangkok, Thailand.

Borne in Kelantan, Mr A's interest in Mak Yong stems from his experience growing up watching Mak Yong performances despite his family's religious background. His participation in Mak Yong performance starts with his engagement with Khatijah Awang's Mak Yong group during his doctoral study. Initially, he was a make-up artist for a dinner performance for the Supreme Head of Malaysia (YDP Agong). Later on, he was given minor supporting roles, such as the Inang, one of the maidens of the princess (Puteri). His teachers of his 20 years Mak Yong experience were Khatijah Awang and her daughter, Noorhayati Zakaria. The most recent performance was in 2019 at Prince of Songkhla University with a Southern Thailand group consisting of Mok A<sup>6</sup> and Mr B. His contribution to the Mak Yong community is important, especially in 1999 when Khatijah Awang was given the highest award for an art practitioner, the National Art Award (Anugerah Seni Negara). He played a huge role in preparing and submitting the necessary documents for her nominations.

### *3. 1. 1 On Khatijah Awang and Her Training Method*

His engagement as a member of Mak Yong community in Kelantan since the middle of 90s led to him witnessing the early establishment of Mak Yong students taught by Khatijah Awang at The National Art Academy (or Akademi Seni Kebangsaan (ASK) back then, now renamed as Akademi Seni Budaya dan Warisan Kebangsaan, (ASWARA)). According to Mr A, Khatijah Awang's interest in Mak Yong was influenced by her mother-in-law, Che Kemala Che Muhamad, a Mak Yong Primadonna in her younger days. Che Kemala was married to her second husband, the then Speaker of Dewan Rakyat, Tan Sri Nik Ahmad Kamil Nik Mahmud. According to Mr A, she was mesmerised by Che Kemala's exquisite Mak Yong performance. It is also worth noting that Che Kemala also had her own Mak Yong group called 'Makyong Diraja Che

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<sup>6</sup> 'Mok is a term of endearment applied to a female elderly figure or mentor; the literal meaning is "aunt."

Kemala'. The group was created before Khatijah Awang established the Sri Temenggung group in the 70s (Nor Hatina Shuib 2018).

During the early establishment of Mak Yong in the National Art Academy, Mr A managed to catch training sessions led by Khatijah Awang. He recalls those early teachings that her method looks 'unsystematic'. It usually started with her giving scripts that needed to be understood by the students before she assigned the role to potential students with the quality needed for the role. Students will have ample time to understand the scripts before the training session begins. Usually, she will teach the steps for dance movements first before they begin training. During the acting part, she would usually sit in the middle of the class and ask them to perform their part with her instructing, described by Mr A as "...with her loud voice, correcting them." Should the students not have the correct posture or movements, she will then step up and place herself beside the students to show the proper execution, including the posture and movements for the characters. In selecting her students for the main role, such as Raja (King) and Puteri (Princess), she would usually pick students with physical quality and good looks, the talent to act, sing and dance. He describes that the character for Puteri must be slim in figure with a good bust posture (*dada bidang*) while the Raja/Pak Yong needs to have a middleweight body, not too thin or too chubby. The character needs to have a good bust posture to show his proudness as a king but also soft in his touch at the same time. Therefore, the role can be given to a male or a female lead— if the actor/actress can play the character accordingly. Khatijah Awang also usually will give the role of Inang, and the leader of the Inang called Ketua Inang to a more effeminate male person as she saw the entertaining quality that they can bring on stage and thus further enhance the audience's experience. Such practice also presented her views on gender equality in performance, according to Mr A and such role assigning practice was never used by any other group prior and had only been started by Khatijah Awang. He further added that her training is an experience that makes indifferent students fall in love with the art. Usually, training sessions by other Mak Yong troupes will depend on the individual eagerness to learn and efforts to seek knowledge.

### *3. 1. 2 On Mengadap Rebab Dance Movements*

The earliest lesson taught by Khatijah Awang to her students in learning this dance is body posture. The important posture in this section is the 'Seding' and 'Ghey', with the former sitting on the backbone. The latter is the bending of the backbone through inhaling and exhaling breath. The quality of the hand movement in this section is that it cannot look 'dead' or 'soft' but have both quality of 'soft' and 'hard'. The bending of the hand is also important during hand movement. At times the eyes need to follow the movement of the hand. There is a hand movement in this section as if trying to 'grab' the audience, locking their gaze to the performer's eyes, mesmerising them. The meaning of this movement was told by the late Khatijah Awang as 'melimbai' or 'melambai'. Some of the hand movements in the section are said to imitate the movement of a snake. The whole dance section expresses the coming of the Raja to the realm depicting the movement as confident and smooth as a snake slithering its way. Another expression of the king's arrival during this section includes the movement of the elephant's trunk. Other than these descriptions and movements, another is the finger's movement that shows the five pillars of Islam. The index finger pointing upwards (towards the ceiling) expresses the one God, Allah. This symbolism shows the Islamic layer in the complexity of culture in Kelantan. The dance section was only recently incorporated and exclusively available in Sri Temenggung's version, such as the Tarian Ragam. The movement of the dance, according to him, was influenced by another Kelantanese-Thai traditional performing art called Menora. The style of walk in the dance, particularly, was akin to the style of walk in Menora, where the feet are only elevated slightly higher than the ground and need to be executed with grace rhythmically.

### *3. 1. 3 Criticism on Mak Yong*

As he had been exposed to the art since childhood, a deep interest, love, and insight for Mak Yong were developed. However, he would sometimes differentiate his identity as a Sunni Muslim and a Mak Yong practitioner. In one instance, he advised one of his fellow co-performers, Mat Din, to not proceed with the pagan practice of the old tradition in Mak Yong of having to fulfil a certain deed/offering called *pelepas* to keep the bad spirits away. He instead asked Mat Din to recite the Quranic verses instead of depending on an RM1 or 20 cents coin as a protective measure against bad spirits. Although reluctant, Mat Din still performs with the troupe that night despite not making the offering. Mr A believes such practice has already been left out of favour due to Mak

Yong's ban status in the state of Kelantan<sup>7</sup>. Even in the mid-90s where the late Khatijah Awang practised having 'Buka Panggung' offerings (Telur Jurai, Tumeric Glutinous Rice and Roasted Chicken) before the performance, he believes that such practice was done out of tradition and not because they truly believed it. In the case of Mat Din, he advised and made clear to him that he does not have to depend on such practice for them to have a successful show and keep reminding him that he is a Muslim and such belief is not in line with the Islamic value.

His experience practising and participating in the art for more than 20 years makes him deeply understand Mak Yong, especially the roles of characters in the performance, its conventions, language. He also commented that some of its weak points need to be changed to suit the contemporary audience. Khatijah Awang, with whom he had established a connection through research and performance, was highly regarded as a performer, teacher, and the main catalyst in the revival of art in the contemporary period. They also shared the same aspiration on getting more attention to the art either by the local or international audience. Among his criticism towards Mak Yong during the interview was the lack of interest by Mak Yong practitioners in the context of its relevancy with the contemporary audience. Mak Yong practitioners were too engrossed, especially in the interaction and improvised acting during the show, that they tend to forget the demography of their audience and their understanding of the dialect used in Mak Yong. This attitude will likely turn the audience away as the time taken for a performance to complete tends to be more than one hour. With the revival of the art through Sri Temenggung, the Mak Yong nowadays, especially the one connected to the troupe, tend to complete the performance much earlier than the Mak Yong troupe in the rural Kelantan or Thailand; between one and a half hours to two hours.

In discussing the learning process in Mak Yong, he commented that one should learn the art through a practitioner that is known to play the lead role. Usually, the role is only given to a person who would lead the entire troupe, as such in the case of Khatijah. Their understanding of the entirety of the art itself will give a better insight to the eager students who would seek lessons from them. Another reason being is that, naturally, the main lead or the Pak Yong will have to know the art inside-out to bring the performance to success; from cues, roles, music, its conventions, and the awareness of the air during

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<sup>7</sup> The banning of Mak Yong by the state government of Kelantan in the 90s was as a result from such pagan practice that is not in line with Islamic practice and belief.

a performance (which includes unscripted incidents on stage and audience reactions). Therefore, according to him, the role of Pak Yong is the hardest one to play in Mak Yong as it demands a total commitment and a deep passion towards the art from the actor to understand the many aspects of Mak Yong performance. To start the journey, he recommends that the actor take the small parts of the performance while making their way up the ladder until they can be the lead actor/actress. Another crucial part of their learning journey is understanding the classic Malay-Pattani dialect rich within the art. Since some of the terms used in the performance also confuse the contemporary Kelantanese audience, therefore a good Pak Yong needs to be the one who teaches the art. The pronunciation of the dialect, rhythm, and melodies are of concern in the training if one wants to be a good Mak Yong actor.

### *3. 1. 4 Difference Between Mak Yong in Different Regions*

The final part of this interview is his thoughts on the difference between Mak Yong in Thailand, Kelantan, and Riau through his previous experience of watching them. In 2011, a Mak Yong convention organised by the Southeast Asian Center for Archeology and Fine Arts (SEAMO – SPAFA) was held. It gathers different Mak Yong troupes from regions across Southeast Asia; Indonesia, Malaysia and Thailand. The convention had been participated by three Malaysian Mak Yong troupes, each from Universiti Malaysia Kelantan (led by Noorhayati Zakaria), from ASWARA and one Kelantan Mak Yong group led by Mr No, two groups from Narathiwat and Yala, and lastly, one group from Tanjung Pinang, Riau Islands, Indonesia.

According to him, a significant difference between the Mak Yong group from Thailand and the Kelantan village group with the troupe led by Noorhayati Zakaria. It has a longer story development, and the duration of the performance is also longer as it depends a lot on the improvised acting skills of its actors. If we compare the performance duration between the Thai group, village Mak Yong and the one led by Noorhayati, the longest performance would be the Thai group, followed by the Mr No's group and lastly, Noorhayati's group. One of the reasons for the huge difference is that the group led by Khatijah Awang had gone through improvements to suit audiences of different backgrounds and nationalities. Therefore, the group had a 'friendlier' approach to foreign audiences instead of the Thai and the Kelantan Village group. Khatijah Awang, who sought to revive the art for a contemporary audience, had shortened the play and

improved the elements of costume and dance. Her exposure to many local dance performances (such as Asyik, Zapin and Inang) and international stages had opened her eyes to improve Mak Yong's aesthetic, according to Mr A. Her vision was that she wanted Mak Yong to have an aesthetical grandeur look; through beautiful costumes and better stage construction. To do that, she had her research to better represent the characters according to the local traditions. This value differentiates her from her Thailand counterpart. In one instance during the Mak Yong conference by SEAMO-SPAFA, Mr A said some of the group even rented a bride and groom's marriage costume and used only jogger pants for the performance. He feels that it did not aesthetically fit the characters portrayed on the stage.

### *3. 1. 5 The Case of Mak Yong Community in Raman, Southern Thailand*

Through Mr A contact, we extended the ethnographic fieldwork to Raman, a district in Yala Province, Southern Thailand. The main contact person of this community is Mr B, who provides space for various cultural activities within his family's compound, designated as 'Kemeng Folk Museum'. These cultural activities include martial art training of Silat, Menora and Mak Yong. Other than Mr B, Mok A, Pok A<sup>8</sup>, Mok B, Pok B, Mok C and Ms W were interviewed from 11<sup>th</sup> to 12<sup>th</sup> September 2019. Other than Ms W and Mr B, the age of these Mak Yong community members are between 60 – 80 years old. It is worth noting that all members interviewed for this study do not constitute a permanent line-up for a Mak Yong performance but are part of the loose collective within the network of Mak Yong artists. As it were with how Mr A operates with his Kelantan Mak Yong community, if given the invitation, so does this community. They will first discuss which artist and ensemble can be invited for a performance.

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<sup>8</sup> Pok is a term of endearment applied to a male elderly figure or mentor; the literal meaning is "uncle."



Figure 2 – Ke-meng Folk Museum Chalemraja Cultural Center in Raman, Yala Province.

### *3. 1. 6 Knowledge Inheritance Within Mak Yong Community in Raman*

Previously, we encountered the Mak Yong community in Kelantan, where knowledge transfer was done formally in the higher institution witnessed by Mr A in the 90s. This knowledge transfer path has been common for the past few decades as Mak Yong had been part of the curriculum in several higher institutions. Among these institutions are the National Academy of Arts, Culture and Heritage (ASWARA), MARA University of Technology (UiTM), University of Malaya (UM), Sultan Idris University of Education (UPSI) and Universiti Sains Malaysia (USM). Despite the decreasing popularity of traditional performing arts over the years marked by the extinction of several performing arts such as Mak Yong in Kedah and Perlis, how can the Mak Yong community in Raman survive and transfer their knowledge within the contemporary context? It is one of the questions that drive the interview. The inquiry was divided into several series of related questions to understand the reality these Raman Mak Yong community had experienced.

Most of the respondents from the Raman Mak Yong community interviewed came from the Mak Yong family of performers or actively participating in various Malay



cultural activities, including Menora and Mak Yong. Pok B stated that Mak Yong had been part of his life growing up as he did not go to school and would follow his family wherever they may perform. The same goes with his younger brother, Pok A as well, where much later in life, they performed as Peran in Mak Yong, forming a comic duo loved by their audience. While this is the case with most interviewees, we have seen people other than the immediate family of performers participate in the activity. One of such instances is in the case of Ms W. He acknowledged that his participation in Mak Yong performance stems from his experience of getting healed through the spiritual healing of Main Puteri when he was around 10 years old. As he was feverish for about a year, his granduncle suggested that Main Puteri could help him get better. His first participation in Mak Yong was during his adulthood of 28 years old, where he played as Inang, one of the king's maiden. His relationship with Mak Yong is a spiritual one, as he said it gives him vitality and refresh his spirits after a performance. Ms W's relationship within the community's network is not uncommon as such a case is also seen in Mok Mok C or Mok B, wife to Pok A. Despite having her mother that also performed in a Mak Yong group, she started training with one of the family members of Pok B, which is Mok D, who was also responsible for healing her spiritually. Other than Mok D, she also learns Mak Yong from Pok B.



Figure 3 –Mok A during an interview at the Ke-meng Folk Museum

Regarding the age of exposure, an average of around 10 – 13 years old or pre-teenage is observed from the interviews conducted. Respectively, Mok A first started training at 13 years old, Pok B at 10 years old, Mok C at 13 years old. Despite having either parent as a member within the Mak Yong community, the knowledge transfer does not necessarily happen between the child and parents. The case is true for Mok C and Ms W, where they received training from community members outside their nuclear family. However, it is worth noting that their exposure to the art that will influence their subsequent participation in the art is also an important context to understand. While training is received from the senior members of the community, the exposure in the younger community members could be initiated by its way of life where the community's inclusion of younger family members in the cultural activities is often done even with the travelling nature of the community.

### *3. 1. 7 The Travelling Mak Yong Groups*

While previous studies focus on certain conventions within the Mak Yong performance, this travelling nature of the community was deeply discussed in the previous studies. Our discussion on Mak Yong is important because the form travels from its original state within the Patani – Kelantan region to other parts of the peninsula such as Kedah, Perlis and even goes out as far as Sumatera and Riau islands through Singapore. This context is especially important in discussing Mak Yong's cultural evolution. We will try to observe some cultural contexts that could give us the background information for this discussion. The community members share various stories regarding Mak Yong performance and their travels which might enlighten us on some perspectives regarding this area of concern.



Figure 4 – Pok A during an Interview at his house in Raman

Pok B provides some interesting stories about how Mak Yong was performed during its heyday. It is said that Mak Yong groups that travel to perform in various places will go out and travel for months before returning home. Some of the group had even reached Penang other than the neighbouring Kelantan. The performance can sometimes be ticketed according to the host's agreement that provides the space for performance. The ticket price for a Mak Yong performance was charged at about 3 Baht ('Kok') during the post World War II. Mak Yong can also be a communal activity as the players and actors often bring basic clothes and instruments. The costumes may be provided with the help of the village people in the area where they perform. Mok A explains that the performance can be located anywhere from the middle of the paddy field to a cattle barn. Pok B said that sometimes they performed in the shophouses and cinema owned by Chinese business entities. There is even a story where Mak Yong shows in the cinema managed to have more audience than a Hindustani movie showing at the same time. The performance duration can be lengthy as it could be extended into dance sessions after Mak Yong ended. Pok B recalls being sleepy playing the instrument in these sessions as they have been playing music all night into the morning.



Figure 5 – Mok A (most front), Mr A (Right) and Ms W (Back) in a Mak Yong performance at Prince of Songkhla University, Pattani Campus, several nights before the meeting. (Courtesy of Prince of Songkhla University Pattani Campus)

### 3. 1. 8 The Mak Yong – Main Puteri Relation

Another interesting observation based on the fieldwork in Raman is the importance of Mak Yong – Main Puteri relation within the sustenance of network and longevity of the art form in Southern Thailand. There are three possible performance structures regarding Mak Yong and Main Puteri. These are either Mak Yong or Main Puteri without the other, and then there is the Mak Yong – Main Puteri performance (Yousof 2004: 41). While both Mak Yong and Main Puteri is interrelated to one another, the objective is different. The former usually aims to entertain, while the other is for spiritual healing purposes. The spiritual healing is often initiated by two main personnel, mainly *tok bomoh* or *tok puteri* and *tok minduk*, with additional help from the musical ensemble consisting of Rebab, the bronze gong called *tetawak* and a pair of double-barrelled drums (*gendang*). The additional instrument may include a pair of cymbals (*canang*) and an inverted gong called *kesi*.

Main Puteri typically starts with Buka Panggung ritual as with Mak Yong and Wayang Kulit Siam. Usually, this spiritual healing is often done after the late-night Muslim prayer (*isyak*). After a series of invocations, incantations and musical preludes, then the period of trance by *tok bomoh* will begin. The objective is to diagnose which spirits descended in the body of *tok bomoh* to be the ones who plagued the patient. The spirits descended will be interrogated by the *tok minduk*, and persuasion between the

*minduk* and the spirits ensues. The former often provides an offering to the spirits to not disturb the people involved in the ceremony. Should the spirits responsible for the patient's illness be identified, *tok minduk* may strategise the negotiations either gently, coerce or threaten depending on the situation at present. Periodic treatment to supplement the cure for the patient is not uncommon, and in some cases, treatment may need to be done for several nights. Depending on the nature of the illness that inhibits the patient, if it is connected to *angin mak yong* or the wind of Mak Yong, the patient might need to perform a certain part of Mak Yong story to appease the spirit. *Tok bomoh/Tok minduk* will appoint their patients to play a certain role in Mak Yong performance and guide them through until spirits are satisfied, no longer putting the body of patients in harm's way. Such is the performance of Mak Yong – Main Puteri where the combination of both elements of Main Puteri and Mak Yong is needed to cure the patient's illness that is associated with Mak Yong. Other types of illness that could be diagnosed through Main Puteri includes *angin silat*, *angin joget*, etc. These illnesses are often associated with their attachment within the linguistic perspective. It also incorporates the possible treatment given to the patient to satisfy the prerequisite element of said sickness before the patient recover. Several causes, concepts and methodology of treatment had been discussed widely by Ghulam-Sarwar, Carol Laderman, Hardwick on this area, providing detailed accounts of their observation (Yousof 2004, Laderman 1991, Hardwick 2009). Among the key concepts here that will be important in our analysis is the discussion revolves around the concept of 'angin' or 'wind' as a descriptive Malay linguistic take on illness. It is also associated with the concept of 'semangat', the Malay's complex notion of the soul previously discussed in the first chapter.

Within this study, we have observed another point of view regarding the relationship between Mak Yong and Main Puteri within the community. Through the case of the Raman community, it is clear that the relationship between Mak Yong and Main Puteri performances goes beyond its function as a means to heal or revitalise the patient's spiritual aspect. Given the cases such as Mok C and Ms W, we understand that Main Puteri acts as a tool for spiritual healing within the community and as a path to introduce the art or to initiate new members to be included in the community (Syafiq Faliq 2020: 9). This observation is crucial in our understanding as we need to confirm how the art is sustainable within the community despite the decline of interest in the younger generation. There seems to be a challenge in the direct inheritance of the art within the community, evidently, through the cases of Mok A, Pok B and Pok A, where

their children are not interested in inheriting and continuing their legacy. However, another study on the same community relatively within the same period suggested a spark of interest within some of the much younger community members (Beng & Shafii 2021). Future studies will need to focus on these cultural mutations within the community concerning their interest in the art. This study could help us understand the rate of decline in the interest among the younger members of the community. Nevertheless, what we could gather so far is the lack of systematic inheritance within the community that the sustenance of the art through the interest of its new members solely depends on the random mutations within the younger community. Currently, it seems that the children have no obligation to inherit the art from their parents. The data so far only suggested that the mutations of interest within the community only appear randomly. Thus the question relevant to this discussion is on how the increased odds on random mutations could, in turn, increase the probability of inheritance and sustain the art through subsequent generations.

Another interesting observation within this aspect is the characteristic of cultural inheritance where oblique and vertical pathways can be seen from the data gathered. In the case of the veteran members of the community such as Mok A, Pok A, Pok B, Mok Mok C and Mok C, they received the knowledge regarding the art either from their parents or the older generations such as their uncles, aunties or grandparents. The younger generation, such as Mr B and Ms W, are also influenced by their parents or the older generation. Another observation is that despite the cultural inheritance being the same throughout the community members, each member is open to a unique experience of cultural inheritance, such as the horizontal pathway seen through Pok A. In his case, he received the influence of Bangsawan in his younger days. He recalls that his focus on practising traditional performing arts are not as focused as his brother, Pok B. It is yet unclear how his participation in other types of performing arts had influenced him in his performance of Peran in Mak Yong. However, this is a discussion that could be extended in future studies. The Bangsawan group that Pok A participated in took advantage of the period movies shown in the cinema during those days and performed the same stories for their production. What can be understood through this observation is that each member received core elements of cultural inheritance that they are exposed to earlier on. Meanwhile, other experience is also possible that could have also influenced their personal development as they matured in their inherited culture. Further analysis on the probable impact on the cultural evolution of Mak Yong will be discussed later in the next

chapter, with a special focus on the aspect of mutations within the traditions of the inherited culture. We will connect these contextual findings on the observation regarding various disconnected data observed between the different periods of Mak Yong's documented history.

Concluding the first phase of data collection in this study, we have understood a few vital contextual information regarding Mak Yong and several observations with the help of Cultural Evolution theoretical understanding. Among these vital information includes approach in the body acting of Mak Yong actors, training method in the higher institution and also within the community, some thoughts on the difference between Mak Yong in Kelantan and its variant in Riau and Thailand according to its community members, the revitalised version of Mak Yong in the city and higher institution and its difference with the one still being performed in the villages, issues of knowledge inheritance in the community and finally the relationship between Mak Yong and Main Puteri in the cultural evolution context. This contextual information will be utilised as background information in the next chapter as we discuss the qualitative and quantitative data obtained in this study through Cultural Evolution Theory. More importantly, this information will help us understand how the cultural evolutionary process within the Mak Yong performance tradition resulted in the change we see today. It will also help us find answers on the dysconnectivity of ethnographic data over different periods. Before proceeding with the motion capture recording of Mak Yong's Mengadap Rebab dance, we will discuss the process involved in acquiring the knowledge on body movements for Mengadap Rebab through participant-observation.

### *3. 1. 9 Acquiring Knowledge on Body Movements*

The aspect of body movement knowledge acquisition within this study is vital for understanding the question of knowledge inheritance within the Mak Yong body culture and its impact from a cultural evolution perspective. Another important discussion in this study is the connection between dance choreography and other elements within the environment such as costume, performance space or accessories. Therefore, to prove the universality of this approach in determining knowledge inheritance, a comparison must be made between two different performing arts that have no historical connection with one another. Through our literary review, we have chosen Noh dance from Japan as a candidate for the comparative motion capture data as there are no indications of any of

its historical connection with Mak Yong. We will be visiting these resources and literature as a context in comparing the motion capture data with a special focus on the connection between the data and aspects that could influence them, such as accessories, costumes, or stage. We will not be visiting the extensive literature available on Noh as this will deviate our study from the focus on Mak Yong as the subject of interest. Rather, the contextual information regarding Noh will be used as part of the comparative analysis between the data from Mak Yong's Mengadap Rebab and Noh's Hagoromo Shimai. In the next section, we will explore the next stage of this study, where knowledge on body movements on Mak Yong and Noh was acquired through several methods. These methods aforementioned are, imitating using online YouTube video as a reference for Mak Yong and through workshops and classes for Noh.

### *3. 1. 9. 1 Acquiring Knowledge on Mak Yong's Body Movement*

Through the ethnographic work on Raman's Mak Yong group in Yala, we were informed by Ms W that he watched videos of previous performances by Mok A to help him train and prepare for Mak Yong's performance. We could understand that within the cultural inheritance of Mak Yong today, some members in the community will utilise the technology to acquire knowledge on the performance aspect of the art. However, this approach does not necessarily mean that it is the main method of knowledge acquisition, but rather it is one of the possibilities within the community. Other more traditional methods, such as those acquired by the previous generation, such as Mok A, Pok A, Pok B, acquired the knowledge through constant exposure and observation since they were a child before being allowed to perform with the rest of the group. This path could be considered the informal acquisition as members obtained the knowledge through oral traditions from their predecessors. Within the Malaysian higher institution, students received formal education on performing arts-related programme where Mak Yong are one of the subjects they need to learn and will be assessed. This path can be considered a formal pathway where the impart of knowledge happens within a structured formal system with its way of assessment.

The path of knowledge acquisition utilised for this study will be of informal one where video on the performance of Mengadap Rebab made by students at the Sultan Idris University of Education from the Faculty of Music and Performing Arts will be used as a reference for practice and motion capture recording session. Before the recording



session, ample time will be taken to practice the dance steps of Mengadap Rebab to memorise every movement. The video reference will also be used during the recording session to avoid misrepresenting the temporal movements. Our objective is to record the pattern of the movements and the aspect of the movement concerning time. Thus, the temporal aspect of the dance, as it needs to be performed alongside musical accompaniment, could not be disregarded. In the next section, we will discuss the experience of acquiring knowledge of Noh's body movements in Hagoromo Shimai. While the acquisition of Mak Yong's Mengadap Rebab can be considered informal, the body movements acquisition for Noh's Hagoromo Shimai can be considered semi-formal. It was acquired through participation in an organised workshop done in several days.

### *3. 1. 9. 2 Acquiring Knowledge on Noh's Body Movement*

On 25<sup>th</sup> to 28<sup>th</sup> of February 2019, a workshop by Master A and Master B located in Rimbun Dahan, Selangor, Malaysia, was attended for the study. Both of them came from a place that has strong roots in Noh tradition over hundreds of years. According to Master A, his family line started to branch off from the main school around 400 years ago. As with the tradition in Noh, Master A started his training at the age of three. The workshop's participant's demographic ranges from the early 20s to 50s, with most, have a significant background in the performing arts, be it music, dance, or theatre.

During the first day, we were introduced to the two dance pieces that we will learn throughout the workshop, namely Shimai dance from 'Hagoromo' and 'Kōkaji'. Master A performed the Kōkaji Shimai, while Master B performed the Hagoromo Shimai. The Masters chose both pieces as it represents happiness and celebration. Sixteen participants were then divided into two groups of eight people each. The lesson started with the correct posture of a Noh player. The posture is performed with the hip slightly bend to the back, straining the posture unnaturally. This position is called *Kamae*. Another important aspect of this posture is the elbow needs to be pointed towards the side. One needs to be careful not to strain the elbow too much, resulting in a stiff and unnatural posture. Another important part of the movement is the *Hakobi*, where a Noh player moves almost gliding on the stage while maintaining the body's point of gravity. The player needs to show their grace movement to the extent that even as the piece needs the player to turn in any direction (clockwise or anticlockwise), the feet needs to gradually bend to the direction of the movement while maintaining the distance between

one foot and another throughout the whole sequence. The front and back foot should not be too far apart during the turning steps, with the back foot touching the front foot's heel. For the Kōkaji Shimai, since the character depicted is of masculine one, a male fox god, the body's posture is different from that of Hagoromo due to the gender depicted. The footing position for this character needs a slight distance between feet.



Figure 6 – Master B held a Noh mask while Master A explained its function to the workshop participants.

The second day started with an interesting explanation of some of the masks used in Noh. Brought on that day were four masks that can be generally divided as male-type characters and female-type of characters, both two masks each. One of the mask characters is a demon called Shutendoji that loves to drink sake. Usually, before wearing the mask, the actor nods their head while facing the mask's front side. This etiquette is done as a symbol of respect towards past performers and ancestors who had donned the mask. There will be a person in charge of tightening the mask for the performer. The experience of wearing the mask could even be elevated to a trans-state, as at times, the long duration of wearing them will result in pain to some parts between the face and the mask. To respect the mask, one should only touch the side of the mask when wearing it. We are then allowed to try and wear the mask. Understandably, a Noh performance is almost an out-of-this-world, semi-trans experience as it propels the consciousness into another space and time where vision is quite limited. With no visibility on one's feet, this could be the reason why one needs to be cautiously concerned about the steps and space they occupy on the stage to avoid mishaps and tumbling during a performance. A Noh

player like Master A requires 15-17 years of training before putting on the mask in performance.

After the explanation by Master A, participants are then told to move around with the mask that they wore. In Noh, the chin must be down, almost touching the neck, during the entire performance. The only way to turn the body is by gradually changing the direction of the steps without moving the body to the side of the head. Some participants commented that female masks' holes are smaller than male masks. We then proceed to the training session, continuing the previous day's progress. The second half of the Kōkaji is harder than the first half as it involves many physically demanding motions such as jumping and stomping steps. The jumping movements in this Shimai reflect the character's emotion of happiness. After successfully tempering the sword for emperor Ichijo, the fox god was so happy that he stomped the ground before presenting it to the emperor. He then climbs on the clouds before arriving at the topmost cloud above the mountains where he resides. During practice, some of the participants had physical difficulties due to the strain caused by the jumping motions. Some almost sprained their muscles as the motion demanded a quick change of pace while maintaining a good posture after the jump. Another cause of this difficulty is the direction for the jump, which demands a 180 degrees turn after the initial position. A tip for this part lies in the understanding of the landing posture. A too high jump will risk the player spraining their legs or thighs. Some participants almost sprained their ankles even though they already had their warm-up before training started. Master A told the participants not to jump but instead replace it with a changing pose on the legs and thighs to ease the practice and avoid injury. Understandably, there are cases of injury during Noh performance, such as the one performed by Kinue Ōshima from the Kita-Ryu school (Oshima 2017: 20). This incident shows that even experienced players also have to face the risk of physical injury during a performance. After the final review, the participants were asked to dance in a group of four due to the limited space. After the performance, a discussion session was done to review the whole training process before learning about the Hagaromo Shimai after the lunch break. The group that had learned Hagaromo Shimai in the last two days will now learn the Kōkaji Shimai, continuing the training to the next day.

The approach for Hagaromo Shimai is slightly different from Kōkaji Shimai. As mentioned earlier, the character is feminine; hence the footing, especially the left and right feet, is close to one another as a sign of feminine character. The story of Hagaromo is about a maiden that descended from the heavens. Her feather robe was taken away by

a fisherman who stumbled upon it hanging on a bough. The maiden then asked the man to return the feather robe, to which he agreed on a condition that she dance first for him. The maiden replied that she needed the robe to dance, but the man suspiciously argued that she may fly off and would not fulfil her promise. The maiden replied that only a mortal would do such a thing as it is not of concern to the people of heaven. The maiden then receives the feather robe and, as promised, dances for the man before ascending back to heaven. The first half of the Hagoromo Shimai is not hard as it has a repetitive sequence. Another huge difference between this dance and Kōkaji Shimai is the use of the fan. The former needs the fan to open since the beginning, and the latter needs it closed all the time. After the session ended, the participants moved on to the next training, learning Noh chant or Utai in 'Takasago' after a short break. Among the tips shared during the training was the chant's technique. The usual chant technique lets the air into the body instead of letting the air out of the body in modern singing. Such notion and technique make the Noh chant unique as it creates a deep and whole sound, almost restrictive in sound but powerful. During practice, Master A reiterate the application of the Jo-Ha-Kyu concept in certain steps to give a better feel at the approach. The concept can be understood as beginning-climax-conclusion flow to the dance steps. The concept is important to give the performer awareness that needs emphasis. Both Masters will frequently refer to the steps and movements following the chant accompanying the dance during training. The whole performance lies within the tempo and the chemistry created between the chant and the dancer. The musical accompaniment will add another level of complexity and challenges for the performers to achieve perfection in harmony. Before the discussion sessions ended, both Masters shared their thought on the concept of Hana (translated as 'flower'). They feel that Hana is a very complex and philosophical explanation whereby it can be seen from any Noh players regardless of age and stage within their Noh journey.

The third day of the workshop picks up from the previous day as we continue our training into the second part of the Hagoromo Shimai. We went through a refresh training of the first part before going into the second part. The second part of the dance is much harder than the first part. Although not physically as challenging as Kōkaji Shimai, the dance poses some challenges in emphasising certain steps. Master B reminded the participants many times during the practice to imagine themselves as the most beautiful maiden in the world, longing to fly out of the stage towards the sky, her home. Such a complex emotional state needs to be shown through a minimal gesture of hand

movements, the quality of footsteps. Additionally, the tilted head angle (as if the character are looking at the moon, the home of the maiden) and the gracefulness of the fan's beauty during the dance are also important elements. It could be said that the second 'performer' of the dance is unknowingly the fan itself. The fan in the second part is utilised to symbolise some actions and images told in the passages of the Hagoromo chant. For example, placing the fan to the shoulder and swinging it back and forth a few times symbolises 'wind'. In another sequence, the fan has to move slightly facing downward motion, almost like a bow symbolising the notion of respect of the maiden towards the earth as she made her way to the moon. Interestingly, the dance sequence gradually gets intense as it switches from the first part to the second part, demonstrating the Jo-Ha-Kyu. After the presentation ended, a discussion was made before the lunch break to discuss the outcome of the presentation. The participants were instructed to choose one Shimai to perform on the workshop's final day. After a decision was made among the participants, they trained for a few more rounds to improve their understanding and refresh their memories. After the training, the participants were then proceeded to the chant training of Takasago before calling it a day. During post-training discussion, Master B commented that although the fundamental steps and framework of the dance is known, Noh players should bring themselves out of the framework using their imagination.

Some participants arrived early to train before the final presentation on the final day. Most participants chose to perform their dance pieces in their best dress. After the performances, Master A and Master B performed each shimai in full costume. Both masters added emphasis and elaborations in terms of performance context, and one could imagine the steps they taught were a basic framework. In contrast, the real performance added decorations and ornaments that created a great painting altogether. After the performance, they commented on their experience for the last four days of the workshop. For the last part of the final presentation, they decided to choose one outstanding student from each group to perform with the mask or robe. It seems that the participant was having trouble performing despite the great early performance without a mask. The participant was asked after the presentation and shared his experience. He felt as if he was in another space due to the limitation on visibility.



Figure 7 – Participants of the Noh workshop at Rimbun Dahan in the final photo session after the final presentation during the last day of the workshop.

After the performance ended, participants had a lunch break, followed by a reflective discussion on the art of Noh. The participants were then asked to return the Shimai fan used during the workshop before heading home. According to Master A, the fan or '*Ougi*, is the extension of a Noh player. It is an object that needs to be shown respect, to the point that the surface of the fan is not to be played with unnecessarily unless the occasion calls for it. Such instances are those like in Hagoromo Shimai, where one needs to hold the decorated side of the fan and other times where one needs to close it partially. A supernatural trait is also attached to the fan. Master A explained that god inhibits the decorated side of the fan; thus, it needs to be treated with respect. The workshop's overall experience provides a contextual ethnographic source for the connection between choreography, accessories and clothing. One could argue on this connection and question how the decision was made in the past to introduce a new element in the performing art subject. The new element is passed on across several generations and possibly adapted to provide a beautiful aesthetic experience for the audience while adhering to the core aesthetic. Concerning this study, we are then left with questions on how the decision to change Mak Yong's tradition was made in the past, what process might occur and how the continuance of practice in later generations is possible while the oral narrative within the past generations faded with time. These questions can be seen in the two distinct styles of Mak Yong that existed today with reference to the past ethnographic data, the mask style and the non-mask style.

After the workshop, another Noh training class was attended under the guidance of Master C between August 2020 and March 2021. Due to the restrictions caused by the CoVid-19 pandemic, the training sessions were done remotely through Zoom online platform. Two Shimai dances were taught in these sessions: 'Oi Matsu' and 'Yuya'. Sessions were done two times per month with a duration of training between one hour to one hour and forty-five minutes per engagement. As these engagements are done through a one-to-one session, a lot of discussions on the art of Noh was done to enlighten further several aspects of the art that was not able to be covered during the Noh workshop in 2019. Also, among the topic discussed in these sessions was the background of his family. He shared his father's journey learning the art of Noh. It is interesting how the family has continued as Noh actors since his father's apprenticeship. Master C shared that before his father became a Noh actor, the previous family member before his father that pursued the path of a Noh actor was probably his ancestor, several generations prior. Some aspects of Noh touched during these training sessions were discussions and the training of Utai or chanting. The previous workshop was not comprehensive, probably due to the difficulty of reading the text and notations for the chanting melody. Vital to Shimai learning, chanting provides a rhythm for the performance other than cues and the semiotic of movements. We will visit these aspects within the next chapter as we discuss the approach of movements in Mak Yong and Noh concerning their motion capture data.

Using the information obtained within the first phase, we will move on to the next phase of this study which covers the quantitative aspect of this research. Due to the subject captured in the next phase will not be the Mak Yong or Noh actors, this contextual information and participant-observation ethnographic approach is imperative to have motion capture data that sufficiently represents the art. Therefore, the important steps for the next stage of this study are acquiring knowledge on body movements and the need to mirror the process undergone by community members. In the case of this study, Mak Yong's Mengadap Rebab body movements will be acquired through training and reference based on videos of other performers, like the one done by Ms W, a Mak Yong community member in Raman. Meanwhile, for Noh's Hagoromo Shimai, knowledge acquisition is through contextual understanding and training by entering classes done by masters of the art. Before going through the process of motion capture recording for both Mengadap Rebab and Hagoromo Shimai, we will first visit the history and important concepts behind motion capture technology and MATLAB®, the programming language used to process, analyse and represent the data.

## **3.2 The Second Phase: Motion Capture and MATLAB® Data Processing**

### *3. 2. 1 History of Motion Capture*

In the previous section, we have understood several underlying aspects and cultural evolutionary processes that could provide us with vital information towards achieving a holistic understanding of Mak Yong. At the same time, we managed to answer some of the inquiries regarding the dysconnectivity of data spanning several periods in time. In the second half of this chapter, we will explore the other important aspect of this research: the quantitative research approach through the utilising of motion capture technology. In general, motion capture is a technology that could help us translate or process a live performance into digital performance (Menache 2011: 2). Conceptually, Menache's description of motion capture technology can be read as below:

*“Motion capture is the process of recording a live motion event and translating it into usable mathematical terms by tracking a number of key points in space over time and combining them to obtain a single three-dimensional (3D) representation of the performance.” (ibid.)*

Meanwhile, Kitagawa and Windsor, in a much practical nuance related to performance in the animation or entertainment industry, define motion capture as,



*“is sampling and recording motion of humans, animals, and inanimate objects as 3D data. The data can be used to study motion or to give an illusion of life to 3D computer models.”*

(Kitagawa & Windsor 2008: 1)

By looking into these definitions, we could understand that motion capture provides us with a way to transform live 3D performance data into digital data. These data could be used to study the performance aspect or to utilise it for animation or the entertainment industry.

Historically, the technology for translating live performance into digital form has been around since the nineteenth century. Setting up the stage for the emergence of this technology was from the photographic pioneers of Edward Muybridge, Etienne-Jules Marey and Harold Edgerton. Muybridge’s zoopraxiscope invention in 1879 was derived from his previous commission, where sequential photos of a horse’s feet movements were captured by a dozen cameras (Menache 2011: 13 – 14). The device that was considered as a precursor to motion picture technology was, in principle, could project sequential images that were printed on disks in fast succession. Then in 1882, a meeting between Etienne Jules Marey and Muybridge in Paris had inspired the former to invent a chronophotographic that enables the capture of multiple images in a single plate through the application of time shutter in the application of the fixed single plate camera. What sets this technology to be the basis of contemporary motion capture technology today is the use of a special suit by the human subject to help plot the movement from the image and subsequently extract it. The third and final pioneer of motion capture technology is Harold Edgerton. His invention of the stroboscope in the 1930s was a by-product of the maintenance and testing of rotating machinery parts. This principle is rooted in the strobe light technology invented in the 1830s, albeit with an expansion whereby Edgerton’s invention can be used to photograph fast-moving objects on film through electronics that could match the flashing light to the revolution of a rotary motor. Edgerton’s invention sets the ground for our current optical motion capture system, where its application ranges from entertainment to sports science research.

While early inventors, as mentioned previously, paved the way for contemporary motion capture technology, the predecessor to motion capture we know today could be

credited to the Rotoscope technology created by Max Fleischer in 1915 that later produced Betty Boop (1930) and Popeye (1933) (Menache 2011: 3, Kitagawa & Windsor 2008: 5-6, Delbridge 2015: 15). This technology aims to project live-action films one frame at a time onto a light table where the cartoonists could trace the frame's image on the paper (Menache 2011: 3). Unfortunately, due to the complexity of the process, the method is not in favour of the studios as even Fleischer took a year to produce a one minute cartoon using the technique. Another example of rotoscoping came in 1937 during the production of 'Snow White' by Walt Disney Studios, where some of the characters were partially rotoscoped. The studio, too, had the same trouble of overbudgeting due to the complexity of the process (*ibid.*). With the advancement of technology towards the 1980s, motion capture was invented to meet with the growing application of 3D animation in commercial media, as did Rotoscope for 2D animation in the early twentieth century. The application of motion capture technology had started as early as the 1970s in the medical and military research area. However, the real application within the digital media is through a commercial project called 'Brilliance' in 1985 (Delbridge 2015: 15). This commercial produced to promote cleaning products aired as part of the 1985's Superbowl and was done by Abel and Associate (Menache 2011: 4 – 6). The project had an 8-week schedule given by their client, and conceptually it uses motion on 18 hinge points to produce a human-like motion for the animation. Through frame-by-frame, these 18 hinge points were marked as black dots using black markers and captured by the camera from multiple angles, whereby the model was asked to perform the movements on a stool with 360 degrees rotation. These image data was then transferred into SGI Iris 1000 system, where the distance between markers was calculated and combined to form algorithms for the animation.

Over the years, despite their niche application, motion capture has become one of the important technology developed and widely used within the entertainment and media industry. Since Abel and Associates project, other media companies had to utilise the motion capture approach as part of their solution for their projects between the 1980s and early 1990s, such as Pacific Data Images, deGraf/Wahrman, Kleiser-Walczak Construction Company and Homer and Associates. These attempts have also contributed to the development of this technology. It also provided several options for solutions based on the type of project. As of now, there are several types of motion capture technology used in the industry. These different types of technology can be understood through the

system that is being adopted relative to the placement of sensors and capture sources outside-in, inside-out, inside-in systems.

- a) Outside-in is the system that collects data from the markers placed on the body. The optical motion capture system will be an example of this system where the camera will capture the positioning of the reflective markers within a space.
- b) Inside-out is the system that collects data from an external source using sensors placed on a body. An example of this system is electromagnetic motion capture.
- c) Inside-in is the system that collects data from sensors that detect the joints' movement on the body. Thus the source of data comes from the movement of the joint itself. An example of this system is the electromechanical or inertial system.

In this study, we will be using an optical motion capture system provided by the laboratory under the supervision of Dr Masahiro Shinya in Hiroshima University Graduate School of Integrated Arts and Science. In the next section, we will familiarise ourselves with the optical motion capture system used in this study to understand the core principle behind the tool used for this study.

### *3. 2. 2 Optical Motion Capture System*

An optical motion capture system is generally regarded as a system that can provide very accurate motion capture data, especially for certain motions. A typical optical motion capture system consists of two components which are a centralised controlling unit, the computer and the second element, which is the capturing tool, Charged-Coupled Device cameras. A CCD camera is a type of camera-equipped with arrays of photoelectric cells, which can also be called pixels. This light-sensitive feature will allow the camera to capture any light source and thus create a digital representation of the physical image where the source originated. With this in mind, it can be said that the higher the resolution is, the better it will be. A typical range of optical motion capture pixels product for professional use today is between one to twenty-six megapixels

depending on the application. This number is expected to be increasing every year as technology progresses and expands. The principle workings of the optical motion capture system require a good amount of undisturbed light sources to be clean and accurate. The company has taken several steps to improve this accuracy. An in-built step for this system is establishing light sources from the camera that could have a directional reflection from the markers. These markers are also provided by the company that supplies the technology. However, one could also build these markers by covering a spherical object with Scotch Brite tape. Another in-built solution to this aspect is during the post-processing stage, where the system's software could have the function to reduce the noise captured during the recording session provided that this noise or occlusion is not extended for a long period. Before a recording session could be initiated, the system usually requires the camera calibrated. This calibration is usually done by having cameras tracking an object with a known dimension, such as a cube-shaped object or wand equipped with reflective markers. Another aspect that needs consideration during the calibration is the position of each camera. The positioning of the camera is important in tracking reflective markers and establishing optimum space for motion that can be presented during a session. As a point of reference, two calibrated cameras will be needed to track a single marker. Additional cameras will maintain a direct line of sight from two markers. Due to these recommended settings, it is advisable to have at least eight to thirty-two cameras per recording session. Due to the load, it will have during the post-processing stage, having two cameras does not always mean a better recording session. Thus, one should bear in mind the considerations between the different aspects of the project, be it the type of motion that need to be recorded, its speed, length, the time needed and the overall cost. As the data processing could be extensive, it is one of its drawbacks as it requires high operating costs. Another limitation of optical motion capture is its lack of ability to operate in real-time if the motion requires is complex or requires a high number of performers. However, with the advancement of contemporary technology, we have seen that this is possible with in-house software such as Qualisys Track Manager and the integration with other third-party software for live-streaming purposes (Qualisys n.d.). After the completion of the calibration stage, the recording session will usually continue with three post-processing steps which are:

1. Producing clean playback of markers
2. Determining 2D coordinates of each marker per camera.

### 3. Identifying marker for each sequence

The data output from motion capture will give us the information on the sequence of global marker positions against time where each marker's Cartesian ( $x$ ,  $y$  and  $z$ ) coordinates will be listed for every frame. These coordinates will then be processed in the next stage of our study through MATLAB® programming language using pre-programmed functions and toolbox made by Berger and Toiviainen back in 2013. Before we explore the workings behind Berger and Toiviainen's pre-programme toolbox, we will proceed with the motion capture recordings for this study. In the analysis section within the next chapter, we will discuss the reflections made after the motion capture recording sessions done in the laboratory, as these are important for future improvements of this study.

#### 3. 2. 3 *Capturing the Dance of Mengadap Rebab and Hagoromo Shimai*

For the motion capture recording in this study, we will be using Qualisys motion capture system with eight cameras to capture both Mak Yong and Noh dances. The model used for this experiment is Qualisys Miquis M3, and the time resolution of the motion capture is set to be 250 Hz. A total of 28 reflective markers with a diameter of 14 mm will be used to construct the skeletal 3D model of the performances. These carefully located markers will also become an important tool for the motion capturing process as they will also record the values of motion at a certain part of the performer's body. Values obtained from these markers will be used for kinematic and time-series analysis to compare Noh and Mak Yong choreography. While using Qualisys motion capture system will provide the data needed for the analysis, it is only valuable to this study after being processed into readable statistics. Thus, for this step, we will be using MATLAB® (shortened from *matrix laboratory*) software as the programming language and its toolbox programmed by Berger and Toiviainen (2013). This selection is because of its integration with Qualisys Track Manager software, where the files could be easily transferred and processed from the Qualisys Motion Capture system. As a fourth-generation programming language, it was built with a special focus on numerical

computation applications with other benefits such as built-in features that could enable users to work with vectors and matrices types of data.

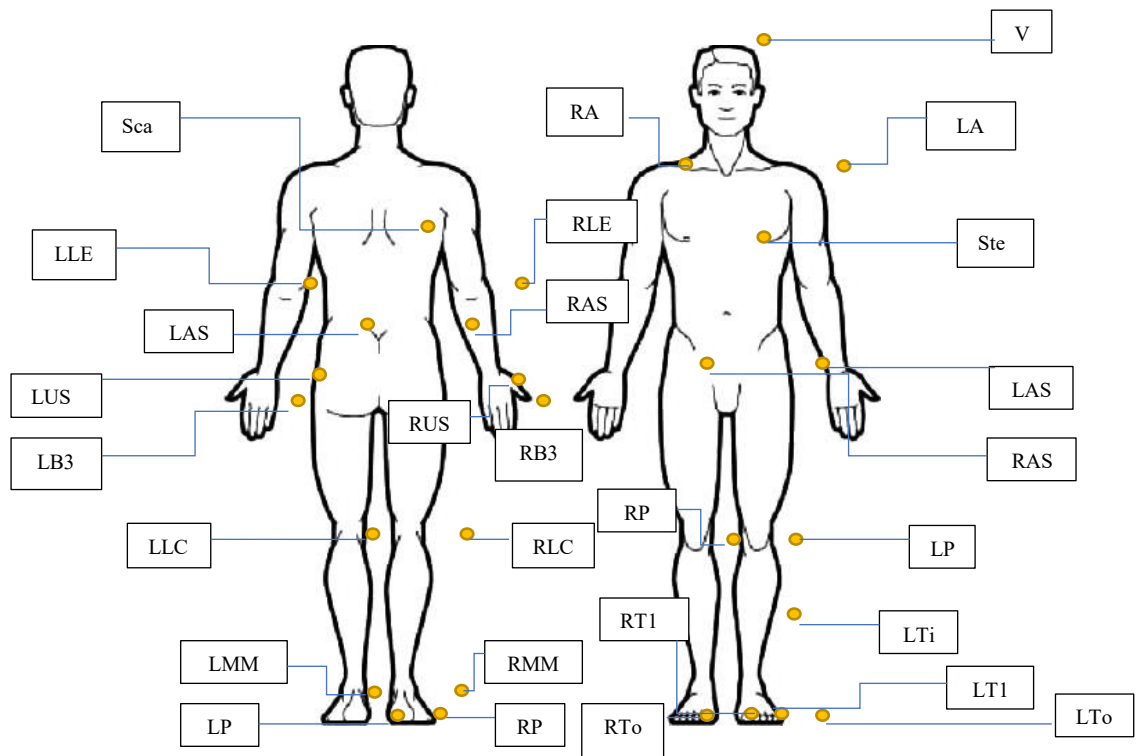


Figure 8 - Location of 28 reflective markers used for the mocap recording

Marker Number	Position	Reference	Abbreviation
1	Vertex	Head	V
2	Right Acromion	Right Shoulder	RA
3	Left Acromion	Left Shoulder	LA
4	Sternum	Front Body	Ste
5	Scapula	Back Body	Sca
6	Right Lateral Epicondyle	Right Elbow	RLE
7	Left Lateral Epicondyle	Left Elbow	LLE
8	Right Ulnar Styloid	Right Hand	RUS
9	Left Ulnar Styloid	Left Hand	LUS
10	Right Ringfinger Proximal Phalanx	Right Finger	RB3
11	Left Ringfinger Proximal Phalanx	Left Finger	LB3

12	Right Anterior Superior Iliac Spine	Right Side Waist	RAS
13	Left Anterior Superior Illiac Spine	Left Side Waist	LAS
14	Right Trochanterior	Right Hip	RT
15	Left Trochanterior	Left Hip	LT
16	Right Lateral Condyle	Right Knee	RLC
17	Left Lateral Condyle	Left Knee	LLC
18	Right Patella	Right Knee Cap	RP
19	Left Patella	Left Knee Cap	LP
20	Left Tibia	L	LTi
21	Right Pternion	Right Heel	RP
22	Left Pternion	Left Heel	LP
23	Right Medial Malleolus	Right Ankle	RMM
24	Left Medial Malleolus	Left Ankle	LMM
25	Right Toe Fifth Joint	Right Fifth Toe	RT5
26	Left Toe Fifth Joint	Left Fifth Toe	LT5
27	Phalanges Distales I	Right Toe	RTo
28	Phalanges Distales I	Left Toe	LTo

Table 1: List of reflective markers and their designated abbreviation

The Motion Capture Toolbox by Berger and Toiviainen is a set of MATLAB® functions made to process music-related movements data coming from infrared-reflective marker-based optical motion capture system. It can transform Motion Capture data for analysis and visualisation where applications in combination with other MATLAB® toolbox are also possible. These 64 functions are categorised into nine categories which are:

- Data input and edit functions
- Coordinate transformation functions
- Coordinate system conversion functions
- Kinematic analysis functions
- Kinetic analysis functions

- Time-series analysis functions
- Visualisation functions
- Projection functions
- Other functions

Function categories that will be utilised for this study are kinematic analysis function of {mccumdist} to calculate cumulative distance travelled by certain markers, the {mcstd} function categorised as time-series analysis function, which will calculate the temporal standard deviation of data while ignoring missing values. For time-derivates analysis on motion capture data, we will be using the function of {mctimer} to determine values of velocity for markers and {mcplottimeseries} in the visualisation function category to give us the plotted graph for data in time-series. After visualising and comparing data, we will then proceed to macro analysis to contextualise the data. Through ethnographic fieldwork of participant-observation and cross-checking with the historical context of both Noh and Mak Yong, we will try to uncover and support the analysis obtained in the microanalysis stage. The utilisation of this approach is in line with suggestions made by Golshani et al. in making a comparative analysis between two cultural subjects captured through a motion capture recording system (Golshani et al. 2004: 99).



Figure 9 & 10 – Motion capture session for Mak Yong *Mengadap Rebab* (on the left) and Noh *Hagoromo Shimai* dance (on the right).

As the comparative study will not look into different tiers of dance quality presented, the approach is intended to record two takes for motion capture data that has the level of 90% readability for certain markers out of the entire performance duration. Our focus markers will be the head, hand, and toe markers. The reason is to avoid too



many errors or missing data in a take which will take a while to sort and make some corrections in case the cameras were not able to capture at any given time. After each take, we will check the quality of the recording and discuss whether or not to do another take due to technical errors or performance errors of the dance. We cannot fully utilise Mak Yong and Noh costumes in each take due to the demand of the Motion Capture machine needing specific attire for capturing the reflective markers. Instead, we will use practical props such as the Noh's *Ougi* or folding fan as it impacts the movement and overall choreography. As a reference, Figure 11 & 12 shows the motion capture outfit and performance accessories used during the recording sessions. Some costume or accessories elements could not be omitted from use during the recording due to the practical effects it has on the choreography and performance. For example, in certain steps of the *Hagoromo Shimai*, holding and opening the fan is needed. Without these actions, it will falsely create the supposed movements, which is not the intention of this study since hand markers are important ones that we will focus on for the comparative data.

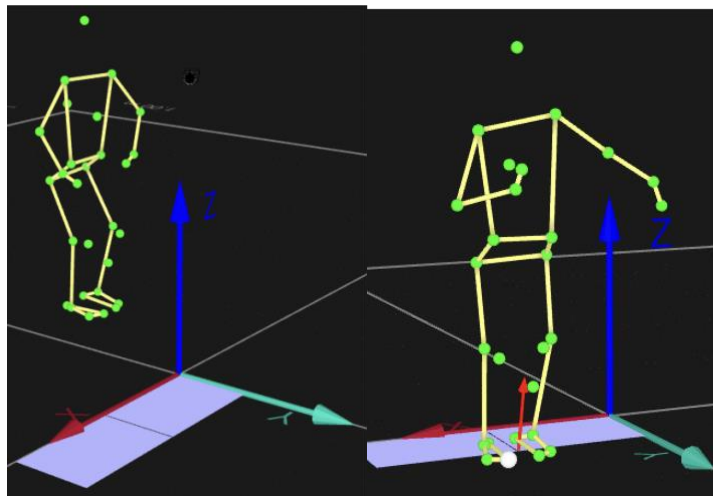


Figure 11 & 12 - Stick figure representing the connected markers on the dancer's body for Mak Yong and Noh performance through the interface of Qualisys Track Manager software.

The next phase of the experiment is to process the result and visualise it through MATLAB® software. Before calculating data for every recording, some pre-processing steps are needed to produce smooth data. The steps include filling gaps if there are any missing data from the recording session and reducing unnecessary noise. The function of

*mcfillgaps* and *mcsmoothen* provided by Berger and Toiviainen will be used for this purpose. The algorithm details of this function can be found in the appendix for reference. It is also worth noting that we will be using the value of 0.2 Hz as the cut-off frequency to smooth our data. Finally, the example of the programming structure for numerical calculations of the marker values can be referred to below:

#### *Cumulative distance*

```
load MakYong_0001.mat;  
  
mcread MakYong_0001.mat;  
  
d2dist=mccumdist(ans);  
  
mcplottimeseries(d2dist, [27 28]);
```

#### *Velocity*

```
load NohHagoromo_0001.mat  
  
mcread NohHagoromo_0001.mat  
  
d2v = mctimeder(ans, 1);  
  
mcplottimeseries(d2v, [1 8 27], 1);
```

#### *Standard Deviation*

```
load MakYong_0001.mat;  
  
load NohHagoromo_0001.mat;  
  
d1=mcread ('MakYong_0001.mat');  
  
d2=mcread ('NohHagoromo_0001.mat');  
  
std1 = mcstd(mcgetmarker(d1, [1 8 27]));  
  
std2 = mcstd(mcgetmarker(d2, [1 8 27]));
```

```

figure, set(gcf,'Position',[40 200 560 420])

subplot(2,1,1)

bar(reshape(std1,3,3)), xlabel('Dimension')

legend('Head', 'Right Hand', 'Right Toe'), axis([-Inf Inf 0 1000])

title('Mengadap Rebab')

subplot(2,1,2)

bar(reshape(std2,3,3)), xlabel('Dimension')

legend('Head', 'Right Hand', 'Right Toe'), axis([-Inf Inf 0 1000])

title('Noh Hagoromo');

```

There are three movement patterns that we will look into for the microanalysis of both dances, as explained earlier. The cumulative distance for toe markers will tell us the characteristics of the dance in terms of space occupancy. We will look into the correlation between the result and the macro analysis of both dances regarding the space size of the Mak Yong and Noh dance. There is a probability of correlation between the traditional space provided for the dance and the choreography tradition. Another element that we will investigate is the value of standard deviation in several markers. The standard deviation will tell us which part of the body is most prominently used in the dance. We could also observe body parts not prominently utilised for each dance and the symbolic meaning of the decision for such communication in the dance choreography. Lastly, the kinematic analysis on the velocity for head, hand and toe markers will tell us the movement pattern in terms of velocity for each of these markers. This kinematic analysis will allow us to look into the pattern of change in the movement for a certain part of the body throughout the whole performance. The change in movements could tell us the important part of the body, the focal point between performer-audience interaction.

In summary, the process of steps of acquiring the motion capture data for both Mak Yong and Noh could be simplified as below:

1. Identify the number of markers needed for the skeletal representation of the captured body in the performance. Important markers that will be used in this study is a head marker (Number 1), hand markers (Number 8 and 9) and toe markers (Number 27 and 28).
2. Change outfit and stick reflective markers on important points in the body.
3. Calibrate the cameras and position them accordingly to capture these important markers; head markers, hand markers and toe markers.
4. Test run a few times and review the percentage of captured markers data.
5. Should all important markers have more than 90% captured, frame and at least two sets data of dance was recorded, proceed to the next steps. If not, repeat the whole recordings.
6. Transfer all data to the MATLAB® software and check missing frames for important markers using the function of {mcmissing}
7. If any markers have missing frames, use {mcfillgaps} to fill missing frames.
8. If all markers' frames have been filled, proceed firstly with cumulative distance for each dances' head, hand and toe markers through the function of {mccumdist} and execute programming to obtain the graph through the {mcplottimeseries} function.
9. Proceed with the calculations of standard deviation values of each dances' head, hand and toe markers and display both dances' values in a graph for comparison through the function of {mcstd}.
10. Finally, proceed with the calculations of velocity for each dances' head, hand and toe markers and display values through the functions of {mcplottimeseries}.

In this chapter, we have discussed the two stages of data collection for this study consisted ethnographic fieldwork data provided by the Mak Yong community in Raman, Southern Thailand. The community shared important insights on the knowledge inheritance over several generations, including from the start of their journey when they were still a child until their adult years, inheriting their knowledge onto the next generation. Some of these channels of knowledge inheritance were shared by one of the family members named Ms W where he learned by observing the video recordings of his teacher's performances. This method was employed as part of the participant-observatory method in acquiring the knowledge and presenting it during the motion

capture recordings in the next phase. Before the second stage of the data collection for this study, another knowledge acquisition was made on Noh dance from Japan to compare the data with Mak Yong's Mengadap Rebab. This comparative study intends to look at the effectiveness of using motion capture data as a tool for studying the effects of elements within the dance tradition on dance choreography. Suppose a causal link between these elements to Mak Yong's choreography by the same hypothetical assumption. In that case, the same could be said to other performing arts regardless of their culture of origin. If data extracted showed the same causal link between the elements and their effect on choreography, then hypothetically, motion capture could be considered a good tool for such purposes in dance study.

In the second stage of this study, we had explored the historical significance origin of motion capture technology and learn about the many types of motion capture technology that existed in the entertainment and media industry. We have chosen optical motion capture technology for this study as it is convenient for our purposes. Together with the consideration on the type of motion capture comes the programming language to process, analyse and visualise the data of motion capture recordings in this study which is MATLAB® software. Before the recordings, we have identified several important elements for the sessions to consider, such as important accessories for the performance. This step is important to have the best data representing the numerical analysis performance. After completing recording sessions, we then transferred the data to the MATLAB® software before proceeding with the computation of data and displaying it through graphs or charts using the MoCap toolbox developed by Berger and Toiviainen. The toolbox specifically caters for projects that analyse movement data recorded by optical reflective marker-based motion capture systems concerning time. After the initial run, we have considered head, hand and toe markers (marked by numbers 1, 7, 8, 27 and 28) as important data for the analysis due to their 90% frame readability. What this means is that 90% of the frames in the recordings for these markers were successfully detected and recorded, thus resulting in reliable output data and being eligible for numerical computation analysis. The next chapter will discuss the findings from the numerical computations using MATLAB® and the graphical representation of data from this analysis method.

## **CHAPTER 4**

### **RESULTS AND ANALYSIS OF FINDINGS**

In the previous chapter, we obtained two types of data for our analysis. Within two phases of the study, we collected both ethnographic and motion capture data that needs to be integrated with one another to rectify issues on Mak Yong's fieldwork data. However, before the analysis could begin, a discussion on some of the approaches on dance analysis and understanding the nature of data presented was carried out. Based on several important dance studies, categorization of visual components in dance can be divided into movement, dancers, visual setting, and aural elements (Adshead 1988: Location 416). As the first step in the dance analysis, these components provided the basic structure before further analysis was conducted to construct a deep understanding on a subject. Adshead further describes,

*“Again, the selection of particular directional emphases derives from the historical origins, purposes, and significance(s) of each dance.”*

*(ibid.* location 440 – 452)

However, to achieve this understanding, there is a dilemma in finding a unifying analytical method that would fit all types of dances that existed in the world. This was addressed by Adshead who added that there were issues fraught upon in the process of analysis, namely impracticality and unfit for a specific dance. In general, there are two types of approach in dance analysis. The first would be anthropological method as can be seen through the scholarly work by Kaeppler and Hanna (*ibid.*: Location 475 - 489). Nonetheless, Bartienieff and Hanna argued that there is a need to develop a methodology that specifically caters for dance analysis (*ibid.*: Location 489). This led to the tendency of movement analysts to use another preferred method of dance analysis, which is the application of Rudolf Laban’s movement theories. The application is then seen in its development in Europe and the USA, where the former was through the works done by Knust and Hutchinson Guest while the latter through Bartenieff et al.’s choreometrics and the Dance Notation Bureau’s notation. The development of these approaches has led into ‘Laban Movement Analysis’ (LMA) or ‘Labananalysis’ where both Labanotation system and the approach of effort-shape is utilized to create a more comprehensive analysis. Often researchers within this field attempted to create an approach that would enable the possibility of cross-cultural analysis. Thus, the idea of an attempt to investigate different types of dance across cultural boundaries is not a contemporary idea but has been around for a while. Bartenieff for example had expressed the need to categorized dances across various culture according to their regional and functional families. The intention is for the ease of learning its cultural and historical contexts (Bartenieff 1967: 92). This has become a huge challenge to scholars as they seeked out to not only create a comprehensive analysis method for all dances, but also the drive to understand the cross-cultural elements between different cultures within the analysis approach. It is then imperative for this study to employ the cultural evolution theory, as it will enable us to understand the changes within different subgroups of people within the same community or across different communities. Later in the chapter we will visit the important concepts of Cultural Evolution theory used as a tool for analysis on the data obtained from both ethnographic and motion capture data. As we are presented with the type of data obtained

in this study, what should be our approach to connect the elements of the dance with the question of cultural evolution?

Out of all the components listed, we are inclined to consider the movement component for the analysis due to the nature of data obtained and how formalistic analysis will assist us better. It will also correspond towards the element of change in the socio-cultural environment. Thus, the analysis that we require is not merely describe or theorize the symbols that matter to the communication of dancers in a Mak Yong dance, but rather to use the opportunity to see how these elements could help us answer the differences that existed between ethnographic data in the past with the contemporary. As we recognise the approach of these dance analysis, the first step in understanding them is to break down the dance into components that is important in the expressions and communication of the cultural subject. In reflection of this, we could apply Golshani et al.'s (2004) approach of micro-macro analysis to construct our understanding. The practicality of applying this method is due to the comparable nature of its data to our study. At the same time, it adopts a similar approach to understanding dance by breaking down the elements in a dance.

#### ***4.1 The Macro – Micro Approach for Motion Capture Data Analysis***

Golshani et. al's (2004) analysis begins by deconstructing the subject into several elements that constitutes the symbolic meaning and significance of the subject as a way of communication. To achieve a similar effect in understanding elements needed for this comparative study, we used samples of motion capture 3D data taken from Noh and Mak Yong dance as the data for micro analysis. Noh *Hagoromo Shimai* dance from the Shite-kata school of the workshop was used as a sample data. For Mak Yong, the opening sequence dance of *Mengadap Rebab* was employed to represent the Mak Yong data. Due to the difficulty of the long process in motion capturing and data processing, the author of this study performed both dances. As reflected by Golshani et. al's study, part of the requirement in this study is the need to have hybrid researchers who understand the scientific process of acquiring data while at the same time having an artistic background who also understands the creative process involved in the dance. Though this can be regarded as a form of bias in this study, nevertheless, such experimental approach is



needed to obtain the required data for comparison. It is also worth noting that as this study is an inter-cultural analysis, hence the high level of precision in executing performances for each dance as done by professionals is not an important variable to consider. Only a general choreographic understanding on the dance is needed with enough preparation time and training before the recording to ensure each step were executed as per instruction or as close as it could to the one performed by masters. However, this approach could only be used as an approach to connect the qualitative and quantitative data in this study. It will not be able to help us describe the phenomenon for our observation. Thus, it is pragmatic to combine this approach together with Cultural Evolution theory to understand Mak Yong as our cultural subject of interest. Before we begin our analysis, we will look into several key concepts that will be beneficial in understanding the process of change happening within a culture.

#### ***4.2 Cultural Evolution Theory***

Theory on cultural changes in society is not a recent development. In fact, Darwin made an early observation on the connection between cultural and biological evolution in 1871:

*“The formation of different languages and of distinct species, and the proofs that both have been developed through a gradual process, are curiously parallel . . . The survival or preservation of certain favoured words in the struggle for existence is natural selection.”*

(Darwin 1981, 59 – 61)

Within these pages, Darwin was making a similar observation between language and biological evolution through natural selection. He described how different languages could have homologies and analogies to one another due to the common processes occurred acting upon its development. Thus, an instance where a certain word survived or preserved over a long period of time shows that it had actually undergone a similar process with any species that prevailed in the wild. If we could apply this concept to

language, then similarly we could apply this to other elements of culture as well as traditional performing arts. By definition, Alex Mesoudi described culture in several definitions. These definitions can be understood as:

1. Referring to a group of people in a nation
2. Referring to high culture such as literature, classical music, Noh or Mak Yong dance, etc.
3. Describing shared values practice in a group or an organisation

Thus, when referring to culture, scientists are referring to a broad term encompassing all of these elements. We can also conclude that this broad term of culture can be defined as information received by an individual from others through social transmission mechanisms such as imitation, teaching or language. Here the word ‘information’ can be understood as knowledge, beliefs, attitudes, norms, preferences and skills. However, we should distinguish the difference between culture and information gained through genetic stored as a DNA. We should also distinguish culture with information acquired through individual learning. The difference between the former and latter is the absence of social transmission mechanism. As a social animal, human spread information from individual to individual through interactions with one another. Embedded within the information lies language, beliefs and other information that encompass within the broad idea of culture.

Mesoudi further explained, to understand the base of cultural evolution concept, one will need to go to the original source from Darwin through his work in the ‘On the Origin of Species’. In the book, Darwin introduced three important elements in his ‘long argument’ which are variation, competition and inheritance (Darwin 2009). If any of these could not be proved than evolution does not occur. Thus, similar to the biological evolution, if cultural subject exhibits variation, competition and inheritance, only then can it be considered as an evolution. Observing human culture, we will notice that across geopolitical boundaries, human exhibit variations of beliefs, norms, preferences, cultural traditions, languages and other cultural elements. Meanwhile, other elements that causes the evolution is also observed. Technology, language and forms of performing art around the world exhibits these characteristics. A dominant traditional performing arts for example will find itself close to the source of capital. Why do certain performing arts receive patronage over others is due to the competition and limited amount of resources

that it can favour. Take for example in the case of Mak Yong, where it received patronage with several other performing arts such as Wayang Kulit during its days under Tengku Temenggung Long Ghafar (Ghulam – Sarwar 1992: 23, M. H. A. Khan 2017: 3). Other examples such as recognition by UNESCO can be considered as competition as well. At present, only Mak Yong is being considered as the intangible cultural heritage over the rest of traditional performing arts. The fact that Mak Yong existed in Malaysia, Thailand and Indonesia but only the Malaysian Mak Yong is recognized proves this occurrence. The final element in discussion is the aspect of inheritance. In biological evolution, inheritance can be defined as traits that is being passed down from parent to their offspring. If these traits increase the chance of survivability of their parents, then their offspring will receive the benefit as well. Overtime, this will gradually increase the survivability of a species as beneficial traits is being passed down over successive generations. We could also observe cultural subject having this trait as well. The general example can be seen in technological advancement of today. The innovations made by mankind does not actually came on its own. It is usually an accumulation of knowledge being passed down from its predecessors until its current product is formed. Beneficial traits are often kept while other improvements are made to increase its reliability and effectiveness. Thus, any unsuccessful technological advancement will become obsolete as it does not meet with the users needs. Another interesting observation can be made on Mak Yong which we will discuss later after the result has been presented.

Other than these three key concepts in Darwinian evolution theory, he addressed several important concepts that explains biological phenomena. These concepts are adaptation, maladaptation and convergence. If cultural is consider Darwinian, then it should exhibit these characteristics as well. Adaptation in Darwinian theory of evolution explained how organism interact with their environment to achieve higher rate of fitness; the higher their adaptation with their environment, the more likely they are to survive. Consider organisms that are able to swim fast due to their streamlined body, this will help them to hunt better or escape from their natural predators. In terms of cultural evolution, we observed the development of hunting tools that specifically addressed the need of that community that thrive on hunting activities. Their challenges in achieving a higher success rate in hunting depends on the design of their hunting tools while considering their available resources in the environment or within their social network. Meanwhile Maladaptation can be understood as the opposite meaning of adaptation. While adaptation within the biological evolution gives advantage to a species,

maladaptation can be understood as traits that is not beneficial to the species' new environment. This is possible when organisms maintain its traits from their previous environment but the changes do not really affect the entire population to the brink of extinction. One of the good examples is the skeletal hind limbs of a whale, reflecting its quadruple predecessors long time ago. The last important element explained by Darwin is convergence. Convergence can be defined in biological evolution where one species evolve into having common traits due to the similar environment they live in. A good example of this element is the function of wings for bats, birds and insects. In terms of cultural evolution, one could observe the emergence of writing system in the early civilisation such as the Sumerians, Chinese or Mexican Indians. Another example is the creation of fork and chopsticks, both function as a tool to pick up food.

Referring to the concept developed and explained by Darwin, we have now understood the parallel phenomena occurring between both biological and cultural evolution. Since then, the Darwinian concept of natural selection for evolution was improved by later works in modern synthesis by neo-darwinian. However, where knowledge on biological evolution had developed further under neo-darwinian, Mesoudi saw cultural evolution only exhibiting Darwinian and not neo-darwinian characteristics based on evidence presented (Mesoudi 2011: 46). Thus, our understanding is that cultural evolution exhibits the opposite of neo-darwinian assumption which consists of three elements. These are non-particulate transmission, Lamarckian and directed mutation. On non-particulate transmission, information is being passed on to others with blending characteristics. This means whatever information is being passed on, it will be mixed together with other sources of information and never discern into several small units into the receiver. In terms of Lamarckian cultural inheritance, this means that whatever information that is being passed on to others, will be modified first according to our own knowledge, beliefs or skills. The final assumption is the directed mutation where cultural mutations occur due to a directed action that spurs the reaction towards it. We could take the example of the change in consumer behaviour towards advertisement campaigns of commercial campaigns or strategies made by commanders during war. While genetic mutation is seen as total random, cultural mutation does not follow this neo-darwinian assumption.

Another important discussion on cultural evolution concerns around variations within cultural subject. In general, variations within cultural subject over periods of time will contribute to the evolutionary process in a species. There are two levels of

evolutionary trend often considered as microevolution and macroevolution. While microevolution concerns variations within the same species in shorter temporal period, macroevolution concerns the trend of evolution that leads into a new species over longer period of time. In understanding the driving force that caused the variations in the field, several scholars such as Cavalli-Sforza, Feldman, Boyd and Richardson had addressed it through the simulation of mathematical model. Through their scholarly work in ‘Cultural Transmission and Evolution: A Quantitative Approach’ (1981) and ‘Culture and the Evolutionary Process’, we could understand processes that influenced the cultural variations in the field. These occurrences can be understood as transmission, variation, cultural selection, cultural drift and natural selection. Within the microevolution process, transmission that caused variations of cultural traits has three elements which are pathway, scope and mechanism. In pathway, three types of direction can be observed which are vertical; the transmission from biological parent, oblique which comes from the parental generation and lastly horizontal; pathway of cultural traits coming from the same generation with a particular individual. The second important elements of transmission is the scope of transmission, which can be understood in two methods; one-to-one or personal face to face learning from one individual to another and one-to-many, which concerns a transmission from one individual to many individuals. In terms of its mechanism, microevolution through transmission has two observable elements which are blending and particulate. Blending mechanism concerns the average cultural traits adopted continuously by a subject from various sources while particulate deals with transmission with the element of ‘all-or-nothing’ transmission of discrete traits.

The next process is important for our discussion within the microevolution variation due to the cultural mutation or guided variation. While cultural mutation happens at random, guided variation is a directed or targeted change where the receiver will modify the information according to their own cognitive biases. Another important microevolution process is variation, where it is divided into cultural drift and natural selection. Cultural drift is a process that causes the change in the frequency of cultural traits due to random mutation, copying or sampling error. Meanwhile, natural selection is connected to the fitness where cultural traits are preferable and spread due to its benefits for the survivability or reproduction. The final two processes of microevolution are cultural selection and migration. Under the cultural selection, cultural traits are transmitted due to several pre-existing biases from the receiver’s end. These biases can be understood as content, model-based and frequency-dependency biases. Through

content biases, the receiver is more likely to adopt the trait due to its intrinsic attractiveness. In model-based biases, the receiver will consider the source of the cultural trait. The receiver is more likely to adopt due to the source's prestige, age or their identifiable similarity. Where the first two biases concern the source, frequency-dependency biases looks at the frequency of cultural trait. The best example for this is when the receiver conforms to the most popular cultural trait adopted by the population. Under the migration, cultural traits are observed to be transferable into a population under two kinds of transmission, which are demic diffusion and cultural diffusion. Demic diffusion are cultural traits that was spread due to the movement between communities by the source of cultural trait. Meanwhile in the cultural diffusion, cultural traits move beyond a community due to the transmission of cultural traits across groups.

We have now understood the driving force behind the variation of cultural traits within the field in micro-level. While mathematical model is responsible in explaining these phenomena, a different approach is needed for macro-level changes. In macroevolution, phylogenetic method and neutral drift models were applied and tested against the available data. However, our inquiry within this study is to look for dysconnectivity of data between several studies of Mak Yong in a different time period, thus taking macroevolution approach not practical for the analysis. We instead looked into the definitions given to define the driving force in microevolution. Before we proceeded to implement this analytical approach, we addressed a few questions regarding the compatibility of combining cultural evolution with that of ethnographic data. Secondly, does cultural evolution fit within the pragmatism paradigm? In regards to the complement of ethnographic data with the cultural evolution outcome, Alex Mesoudi enlighten us on its benefits,

*“Ethnographic field studies complement experiments by tracking cultural change within small communities of people, addressing such questions as whether people learn primarily from their parents or from their peers, and how such transmission pathways affect within- and between-group cultural variation.”*

(Alex Mesoudi 2011, xi)

Thus, from our available ethnographic data on Mak Yong in Raman, we understood and related with the suggestion given by Mesoudi. These contextual data will not be able to

generate in a controlled laboratorial experiment. Without the complementary approach by ethnographic studies, we could only assume and predict, but will never understand what really occurred in the field around our cultural subject of interest. In regards to cultural evolution and pragmatism, does both subject fit with each other? William James had made a remark on the parallel between both cultural and biological evolution in his 1880 writing,

*“A remarkable parallel, which I think has never been noticed, obtains between the facts of social evolution on the one hand, and of zoological evolution as expounded by Mr. Darwin on the other.”*

He then further notes on what can be defined as random cultural mutation in regards to the working force behind significant cultural achievement in human civilisation.

*“Sporadic great men come everywhere. But for a community to get vibrating through and through with intensely active life, many geniuses coming together and in rapid succession are required. This is why great epochs are so rare, - why the sudden bloom of a Greece, an early Rome, a Renaissance, is such a mystery.”*

Therefore, we are presented with the James’ line of thought parallel to the idea of cultural evolution. However in the very same writing, he criticized the Spencerian idea of cultural evolution, favouring the Darwinian approach to evolution instead.

*“I think that all who have had the patience to follow me thus far will agree that the Spencerian "philosophy" of social and intellectual progress is an obsolete anachronism, reverting to a pre-Darwinian type of thought, just as the Spencerian philosophy of "Force," effacing all the previous distinctions between actual and potential energy, momentum, work, force, mass, etc., which physicists have with so much agony achieved, carries us back to a pre-Galilean age.”*

Faced with our cultural interest in Mak Yong, our inquiries regarding the dysconnectivity of data, the approach using motion capture and utilizing cultural evolution as a basis of our analysis—— these do not deviate us from the path of understanding a subject from

a pragmatist approach. The next stage in our analysis determined the suitability of our subject according to the appropriate cultural evolution concepts and definitions.

Our inquiries regarding Mak Yong's dysconnectivity of data led us to focus our efforts in observing the trend of variations in Mak Yong's bodily expression. These variations can be considered as micro-level variations as it only concerns Mak Yong as its central subject. However, we also noticed some connections with other related traditional performing arts in the region. Nevertheless in the course of our analysis, our elaborations focused more on comparing different variations of Mak Yong to reconstruct Mak Yong's historical narrative based on the presented evidence. Additional information related to other traditional performing arts acted as a supplement or contextual data that will enrich our understanding. We could also consider these related traditional performing arts for future analysis in the future through considerations on using macroevolution analysis tool such as phylogenetic methods. Thus, for this study it is more effective to utilize the approach of microevolution analysis tools and definitions to understand the data we obtained. We will now proceed with the data obtained from motion capture recording and understand its data trend with supplemented ethnographic and literary data for analysis.

### **4.3 Cumulative Distance, Standard Deviation and Velocity Graphs Readings**

Before our data can be processed using this toolkit, raw data from the file was loaded first and then proceeded with the function 'mcread'. Using this function, the raw data was transformed into MoCap data structure. Only by having the MoCap data structure can we use the toolkit for this study. This data structure provided various information such as the recorded locations of the markers including basic information such as number of markers, number of cameras used to record the data, names of the markers used during the recording session and the sampling frequency. Another important information provided by the data was the matrix containing the locations of the markers which were divided into x, y and z-coordinates. It also has field that showed the order of time differentiation, with zero corresponding to location, one to velocity and two to acceleration. We used the field of velocity as the tool for microanalysis through the function of 'mctimer'. Our analysis started with the cumulative distance travelled



by toe marker for both *Mengadap Rebab* and *Hagoromo Shimai* before looking into the standard deviation values between the head markers, hand markers and toe markers and finally we looked into the velocity graph of head markers, right hand markers and right toe markers.

#### 4. 3. 1 Cumulative Distance Travelled by Hand and Toe Markers

One of the important things that we analyzed was the effects of performance space towards the choreography. In order to measure and analyze, we used the function ‘mccumdist’ from the toolbox to look for the cumulative distance for toe markers. The data output was plotted using the function ‘mcplottimeseries’. The result of marker 27 and 28 represents left and right toe markers while marker 8 and 9 represents left- and right-hand markers. The visualization of these results are shown below.

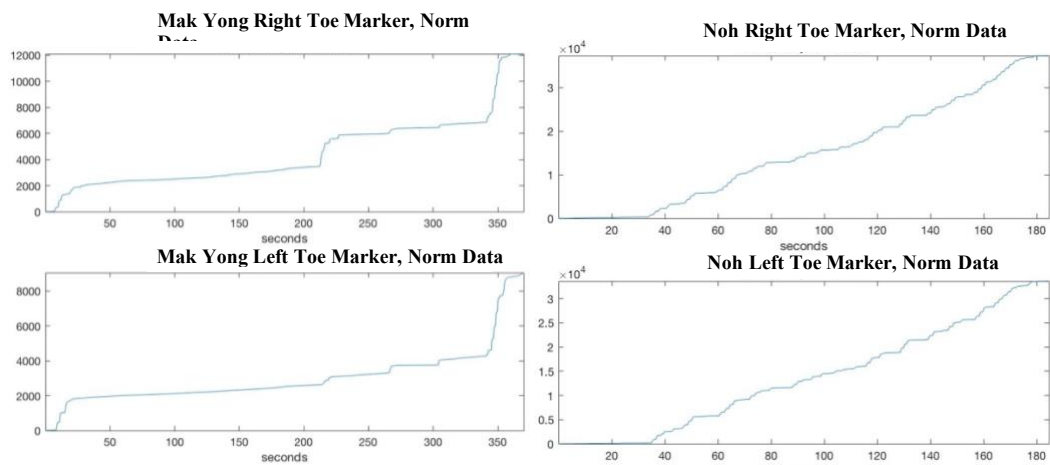


Figure 13a & 14a – Cumulative distance by Toe Markers for Mak Yong *Mengadap Rebab* (Left) and Noh *Hagoromo Shimai* (Right)

Mak Yong Right Hand Marker, Norm Data

Noh Right Hand Marker, Norm Data

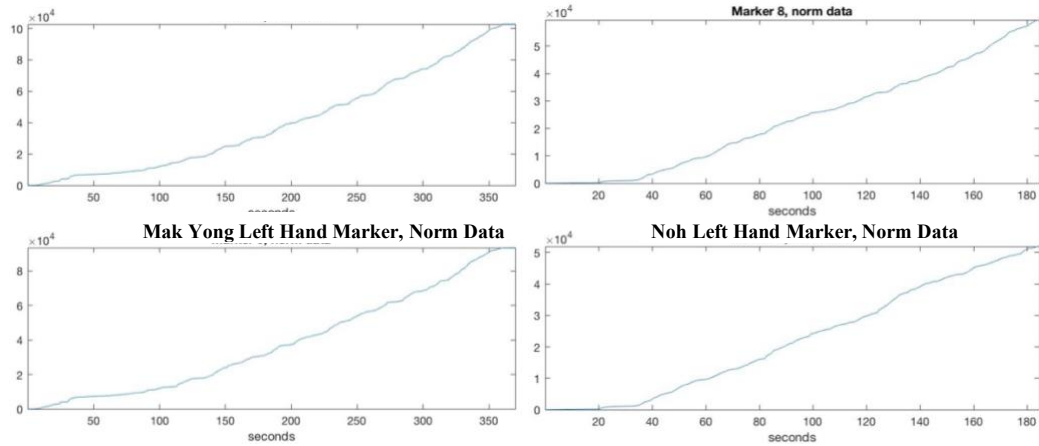


Figure 13b & 14b – Cumulative distance by Hand Markers for Mak Yong *Mengadap Rebab* (Left) and Noh *Hagoromo Shimai* (Right)

#### 4. 3. 2 Standard Deviation Graph for x, y and z Dimension

Using {mccumdist} function, we obtained the cumulative distance for certain specific markers. However, the analysis of this study also looked at the extent of movement for a particular part of the human body. This is done to have a better look at the micro analysis of the dance for a better comparative analysis. Through the understanding of the movement extent for certain parts of the human body, we investigated the important aspect of movements for a dance in the 3D space or the 2D plane. If there are similarities, it could hint us on the cultural diffusion of certain aesthetic in a dance across different communities of the world. Again, despite these early arguments however, we needed to cross-check with the macro analysis to gain a better insight on the comparative analysis. To begin our analysis, after loading the data, we used the {mcstd} function to calculate the standard deviation before plotting it in a bar graph for a better visualization and comparative analysis. Due to the huge difference in std values between *Mengadap Rebab* and *Hagoromo Shimai*, an adjustment was made first in the values for y-axis of the graph. The graph obtained from executing the functions are given as below.

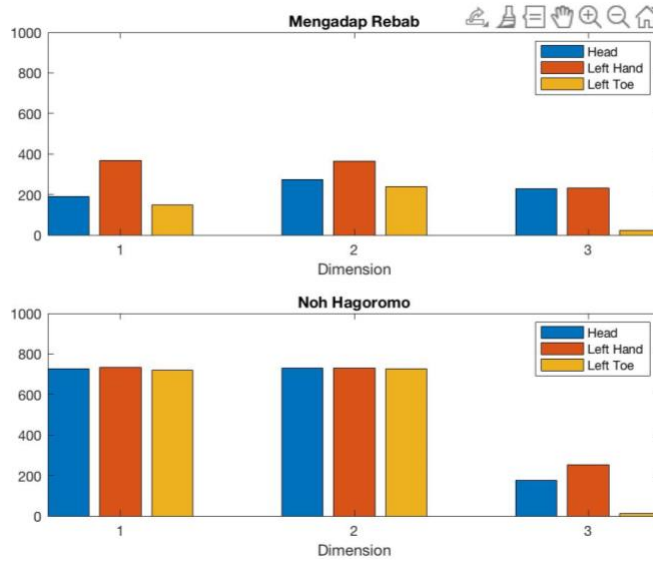


Figure 15 – Standard deviation graph for Mak Yong *Mengadap Rebab* and Noh *Hagoromo Shimai* between the head, left hand and left toe markers.

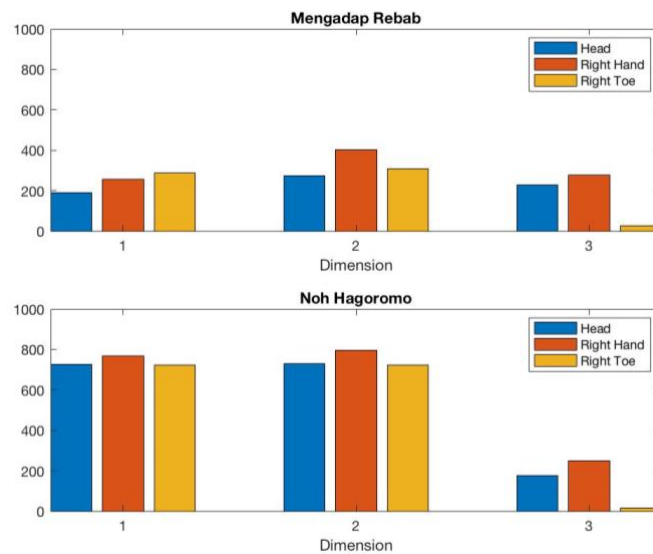


Figure 16 – Standard deviation graph for Mak Yong *Mengadap Rebab* and Noh *Hagoromo Shimai* between the head, right hand, and right toe markers.

#### 4. 3. 3 Velocity Graph for Dimension X, Y, Z

Dance in general concerns the spatial-temporal aspect of our reality. But can we see similar characteristics or features in cross-cultural analysis in dances across the

world? Despite the possibility of cultural transmission across communities, can the temporal aesthetic aspect that was embedded in a dance travel or diffuse from one community to another? Due to these inquiries, we looked into the velocity of movement as an aspect of comparison for this study. To be pragmatic, we used the head, the right hand and the right toe markers for *Mengadap Rebab* and *Hagoromo Shimai* due to the quality issues in the capturing aspect of *Mengadap Rebab*. The left toe marker was hindered most of the time as the dancer needed to sit cross-legged on the ground and seldomly move around to let the camera capture the data. Thus, we could not compare the left toe marker to *Hagoromo Shimai*'s left toe marker properly as the low quality will not have the adequate data for comparison. To proceed, we called the 'mctimeder' function before plotting it using 'mcplottimeseries' function. Marker 1, 8 and 27 represent the head marker, the right-hand marker and the right toe respectively. The result is given below.

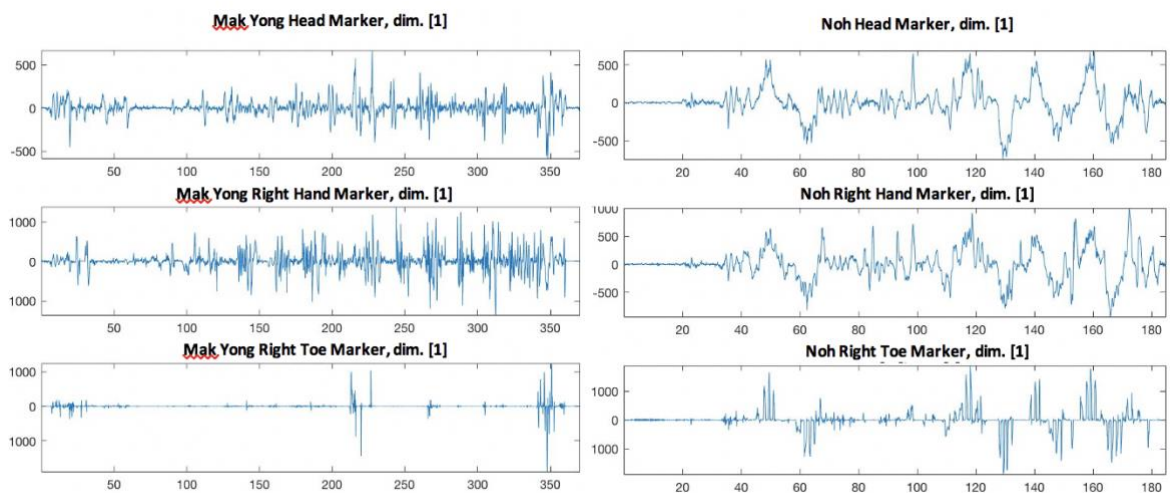


Figure 17 & 18 - x-dimension velocity graph for Mak Yong's *Mengadap Rebab* (left) versus Noh's *Hagoromo Shimai* (Right) for Head Marker, Right Hand Marker and Right Toe Marker.

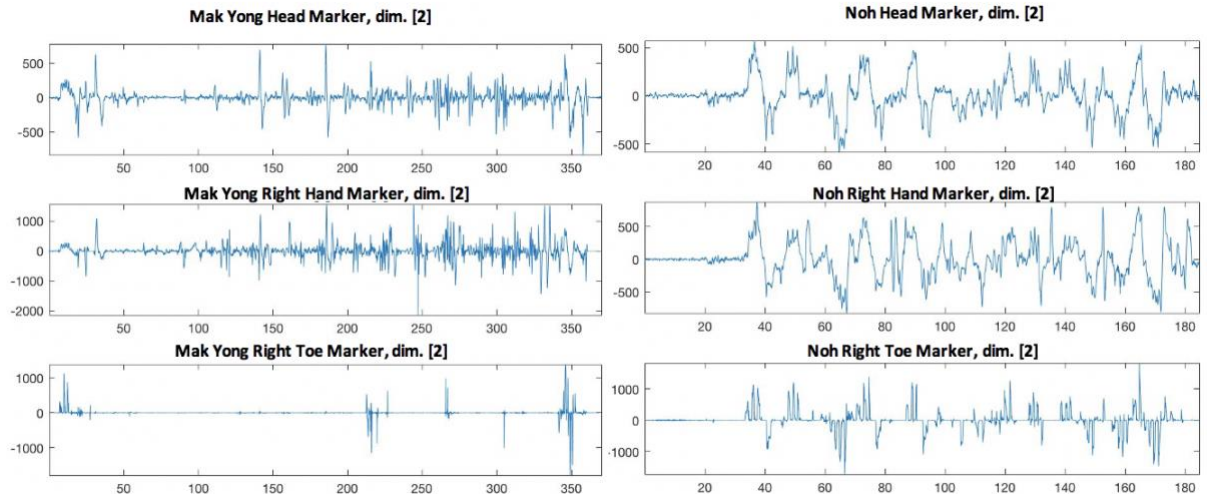


Figure 19 & 20 - y-dimension velocity graph for Mak Yong's *Mengadap Rebab* (left) versus Noh's *Hagoromo Shimai* (Right) for Head Marker, Right Hand Marker and Right Toe Marker.

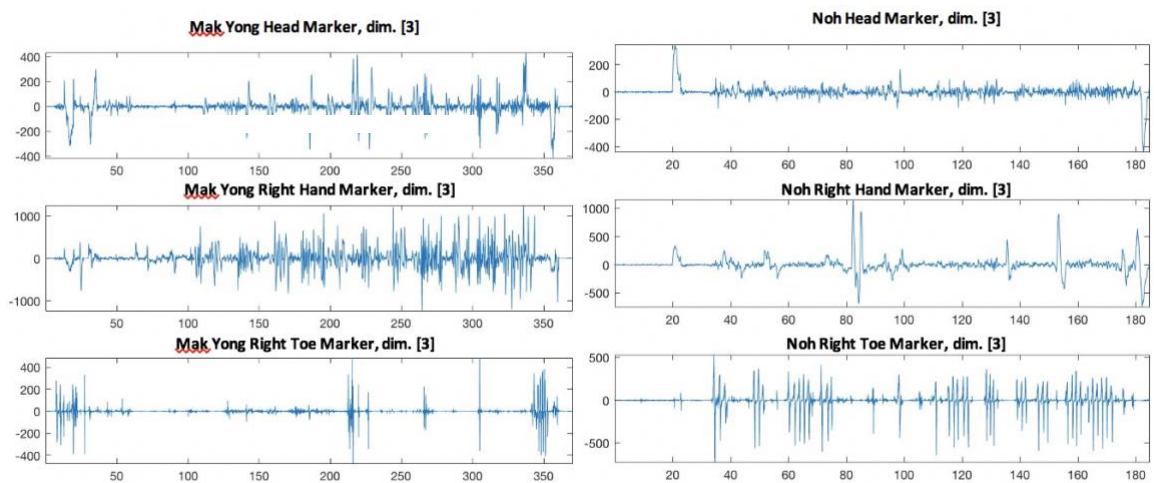


Figure 21 & 22 - z-dimension velocity graph for Mak Yong's *Mengadap Rebab* (left) versus Noh's *Hagoromo Shimai* (Right) for Head Marker, Right Hand Marker and Right Toe Marker.

However, to be more precise in respect to the current programming by Berger and Toiviainen, we considered the movement of these markers in respect to the horizontal and vertical plane. Therefore, we had to create a separate programming to calculate the horizontal and vertical velocity for both dances. This is to ensure our data will represent

the proper measurement and calculations from the recorded data. The outcome of the calculation is shown below.

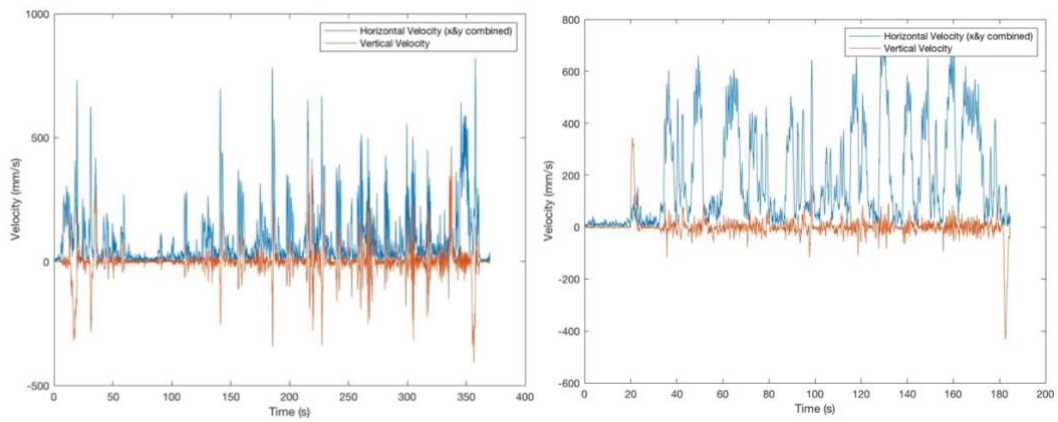


Figure 23 & 24 - Horizontal and Vertical Velocity Graph for Head Marker in *Mengadap Rebab* (Left) and in *Noh's Hagoromo* (Right)

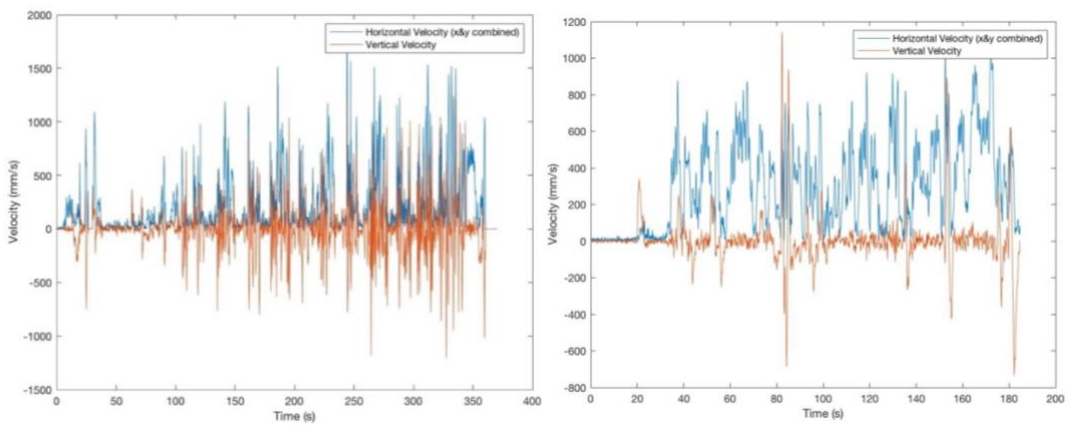


Figure 25 & 26 - Horizontal and Vertical Velocity Graph for Right Hand Marker in *Mengadap Rebab* (Left) and *Noh's Hagoromo* (Right)

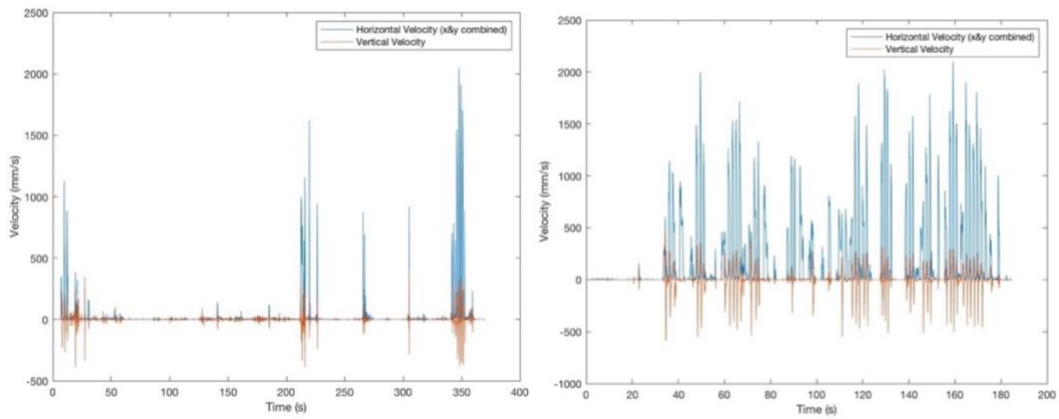


Figure 27 & 28 - Horizontal and Vertical Velocity Graph for Right Toe Marker in Mengadap Rebab (Left) and Noh's Hagoromo (Right)

Using these visual results given through the pre-programming functions by Berger and Toiviainen, we continued into the next phase by looking at the aspect of the micro-macro correlation to connect our microanalysis findings to the contextualized data for each dance.

#### 4.4 Analysis

##### 4.4.1 Cumulative Distance vs Time

One of the difficulties during the recording session of Noh *Hagoromo Shimai* was the placement of the camera to get more than 90% of data captured for important markers. This was caused by the lack of space in the laboratory for the experiment. After several attempts of adjustment, we finally managed to get the recording adequate for this study. This spatial issue in recording attempts clearly reflected in the visual data presented on cumulative distance over time of both left and right toe markers. In comparison with Mak Yong's *Mengadap Rebab* dance which accumulated around 16 meters of cumulative distance, Noh *Hagoromo Shimai* accumulated approximately 40 meters in cumulative distance. The opening dance of *Mengadap Rebab* reflected its performance space in choreography as the traditional stage or *bangsal*, only provided 12 by 16 feet (Ghulam-Sarwar 1992: 24), totaling to 192 square feet. The Noh stage however provides almost

double the amount as explained by Kunio Komparu (1983, 128) to be around three-square *ken* or approximately 320 square feet<sup>9</sup>.

Not only is the difference in size significant, the number of dancers also differ. While Noh shines on the dance performance of its main actor or *Shite*, Mak Yong usually requires a few casts to perform *Mengadap Rebab* together as a way of salutation before the start of the play. In principle, *Mengadap Rebab* is a dance to salute the *rebab* as a gesture of respect to the most important instrument in the whole performance. As such, the symbolic salutations in the Malay culture is to lower the body and to sit cross-legged while hand gestures follow as a way to express respect. We will explore the symbolism behind this gesture of respect through the Malay cultural aesthetic especially in connection to the royal customs of Malay state rulers. After the salutations, only then can the performance begin where actors play their role accordingly. Even as the dramatic story unfolds, the actor will move in a circle to symbolise a journey from the initial place to another, marking a change of location.

In Noh, however, due to the lesser number of dancers in any given time, it allows a more elaborate choreography to take place. The bridge from the mirror room where the actors change their costume or attire called *Hashi-gakari* also become a part of the performance space as well. Even though it is not often used as on the main stage or *hon butai*. The *Hashi-gakari* according to Kunio Komparu (page 136) is 5 to 7 *shaku*<sup>10</sup> wide and from 7 – 13 *ken* long which is approximately 5 – 7 feet by 42 – 77 feet. Together with the main stage, the physical space constitutes the performance in Noh to have a total of approximately 400 square feet, twice that of Mak Yong. This comparable amount of space also mirrors the distance traveled by toe markers in Noh *Hagoromo Shimai* as it reflects slightly double to that of *Mengadap Rebab*. While these comparative numerical values seem like a coincidence, it is nevertheless an interesting insight to look at the relationship between architectural characteristics and performing arts. From natural resources available in a certain locality, it further translates into an architectural form in buildings or performance site based on the social background of the society in study. If more data were obtained, allowing us to build a database or a repository, then perhaps we could look at the trend and make phylogenetic studies on this relationship to understand the pattern of humanity's cultural evolution in terms of the connection between

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<sup>9</sup> *Ken* is a traditional Japanese measurement which is approximately around 6 feet or less than 2 meters.

<sup>10</sup> *Shaku* is another traditional Japanese unit which is around 30.3 centimeters or 11.9 inches. For more details on description of Japanese traditional measuring system, refer to Heino Engel 1985, 32 – 39.



performing arts, the architectural physical culture and the economy in the period in time of where that particular performing arts originated.

Looking at the spatio-temporal relationship between Noh and Mak Yong, the occupation of space in Noh dance is larger and performed in a shorter amount of time. The half duration compared to *Mengadap Rebab* took Noh *Hagoromo Shimai* dance to achieve double of cumulative distance than that of *Mengadap Rebab*. The dramatic effect that Noh *Hagoromo Shimai* tries to achieve is through the occupational movements of the dance in accordance to the given space accommodated by the tradition. In Mak Yong, the dramatic effect it tries to achieve or communicate in *Mengadap Rebab* is by using hand gestures as seen in the accumulated distance by hand markers. Despite the limited space as opposed to Noh, however, the communicative symbolism is apparent using the hand rather than the feet. Here we can clearly see the relationship between how dance responds to availability in performance space, accommodates its socio-cultural needs in communication through their expression in dance. The lack of performance space in Mak Yong is substituted through the dramatization of the hand movements in its symbolic communication of salutation. This response towards the availability of performance space is important for us to understand how the tradition developed and evolved in the progress of time. As responses to this availability of performance space takes place, cultural selection further solidifies traits or features according to social norms at the given time before finally becoming a tradition. Indirectly, there is a relationship between the natural environment, the socio-economic background of given communities and tradition that responded to these resources.

#### 4. 4. 2 Standard Deviation

In this section of the analysis, our objective is to look for the most significantly used part of the body in dimension x, y, and z which is represented by dimension 1, 2, and 3 in the graph respectively. While cumulative could tell us the behaviour of movement for certain markers according to its cumulative distance, the standard deviation graph tells us in a glance, how one dance is different to another in terms of its symbolic communication. In the case of Noh *Hagoromo Shimai*, it clearly showed that the dance emphasizes the importance of space occupation in the 2D plane. If we compare both, the difference is huge in this aspect as *Hagoromo Shimai* is a dance that tells the story about the celestial who wants to return to heaven but could not due to her magical

feather robe being held by a man. While *Mengadap Rebab* as explained earlier, is about salutation to the *Rebab* before the play could start.

Despite these obvious differences however, the data showed that in terms of the feet movement on dimension z, it is similar for both *Hagoromo Shimai* and *Mengadap Rebab*. The emphasis on dimension z for both dances focused on the hand movement instead of the head or feet. Nevertheless, this does not mean the aspect of performance do not disregard the importance of feet movement. Especially in Noh where the sliding feet or *suri-ashi* is part of the basic training for all actors. During the Noh workshop that the author attended, another *Shimai* dance was taught, taken from the Noh play of *Koukaji*. While *Shimai* in *Hagoromo* story focused on the celestial being's gracefulness given its gender is female, *Koukaji* however is the opposite due to the portrayal of the fox spirit, which is male in gender. The *Koukaji Shimai* incorporated the stomping of the feet to express the feeling of excitement for the fox spirit character after the sword he helped forge was successfully created. There is also the motion of jumping in the dance to symbolize the fox riding the cloud and return to Mount Inari at the end of the scene. Observing and learning these two *Shimai*, the symbolic cultural representation of gender is shown clearly through the dance choreography on the feet movement. However, in *Mengadap Rebab*, these distinctions are not shown as the supporting actors mirror the movement of the Pak Yong, the main actor in the dance but still follow a certain formation, as it is a group dance rather than a solo piece. Thus, the movement in the z dimension for Noh is only important when communicating the expression of a character.

Even though we have the background information regarding the chosen dance choreographic tradition of the feet movement, it also tells us the cultural symbolic representation that would result in the cultural selection of that aspect in the dance. Is the choreography decision for feet movement in *Mengadap Rebab* and *Hagoromo Shimai* a result of convergent cultural evolution or is it because they shared common previous ancestral form of performing arts? These questions can only be answered through further phylogenetic analysis over multiple traditional performing arts across Asia in the future. The outcome from this section of data analysis thus give us an interesting perspective of how one aspect of choreography could invoke other interesting discussions on the subject. Another interesting study is to look at the representation of gender in the traditional performing arts choreography in other cultures across the world through the feet movement. Stemming from this discussion, we could also investigate other variables that contribute to these representations such as the environment, social structure, apparel or

other variables. This could lead us to the understanding of how cultural evolution progresses through the gender representation in the traditional performing arts.

#### 4. 4. 3 Velocity Graph

In the previous section, we saw the pattern of choreography with respect to spatial aspect such as the space occupied by the dance and the extent of movements for certain part of the dancer's body. The velocity graph however tells us the pattern of movement in respect of time, as the values are time-derivative. In *Mengadap Rebab*, we can clearly see the focus of dramatic movements is mainly on the movements of the hand. As the graph shows in three dimensions of x, y and z, the hand movements were rapid and quickly changed direction over time. The same observation was seen in the horizontal and vertical velocity graph. In comparison to *Hagoromo Shimai*, the action of certain pause on hand movements created almost a straight-line interval between peaks in the graph. Meanwhile *Hagoromo Shimai* focused on the action in the 2D plane or the x and y-dimension. We can clearly see that the choreography does not have a clear pause between movements except in the vertical dimension. In the vertical dimension, the feet movements showed the greatest peak in both negative and positive values. Thus, we can understand that to truly achieve the dramatic movements in the 2D plane, the feet movements of the dancer in *Hagoromo Shimai* need to change its speed quickly. Especially in the opposite direction as we can see that the toe marker have higher negative values. Kunio Kamparu in his own words, confirmed this view explaining that the upper body is where most movements are concentrated while the feet will supplement the dramatic action through the positioning of the body on the stage (Kunio Komparu 1983, *ibid.*, 220).

Through readings of these velocity graphs, we understand that both *Hagoromo Shimai* and *Mengadap Rebab* need to play with the speed of movements on certain parts of the body to produce the desired dramatic action according to the given spatial conditions. In the case of Noh, the costume, mask and other paraphernalia are important parts of the dramatic effects for the performance to showcase to the audience where the dramatic movements further amplify the performance. During the workshop that the author attended, participants were introduced to the basic posture or *Kamae* that need to

be adhered by all Noh actors. This is important because the elaborated costume in Noh limits the movement of its players. Thus with the wrong posture, it could affect the presentation of the costume in the eyes of the audience. The beauty of the costume don by the actor needs to be highlighted throughout the performance. An incorrect posture will not shine the efforts and the intricacies of fine work embedded on the costume, wasting an opportunity. The correct posture could also contribute to the dramatic effect by other paraphernalia such as the *Sensu* (folding fan) or the mask, the soul of the Noh's main role played by the *Shite*. Kunio Komparu shared his thoughts on the complex system of costume including the layers upon layers that a *Shite* needs to wear for a performance (Kunio Komparu 1983, *ibid.*, 241). It shows the interconnectivity between the role of a dancer with the rest of the Noh community from costume and mask maker to the musicians, as well as those who are particularly involved with the dressing such as fellow *Shite-kata*, *waki* and *waki-kata*. He also noted that in the past, there have been professional dressers who focused only on the dressing of the Noh actor. By having these very systematic approaches in performance, it is only natural that both the Noh movement choreography and costuming undergoes a rigorous process of interactivity to achieve the highest level of artistic pursuit.

Meanwhile, in Mak Yong, the hands are the focus of *Mengadap Rebab* as shown in two different types of velocity graph. This could tell us the connection between choreography and finger accessories. Despite no paraphernalia are worn by the dancers or actors in Mak Yong Kelantan on their fingers today, however in the past, there was a possibility that Mak Yong Serdang and Riau dancers wore a fake fingernail named *canggih* as reported by Ghulam-Sarwar (1992, 62). However, such observation was not specifically observed in Mak Yong of the Malay Peninsula except by previous scholars like Skeat in *Malay Magic* (2015, 925). He also noted in his observation that Mak Yong still used masks for the role of *Peran*<sup>11</sup>. Here we can understand that there could be a probability that there has been a change in Mak Yong costume today in Kelantan and Southern Thailand between the early 20<sup>th</sup> century and during the time of Mak Yong's revival through the Sri Temenggung Group led by Khatijah Awang in the 1970s. The fact that the choreography in Kelantan maintained its focus of dramatic elements in

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<sup>11</sup> It is worth to note that the description of Malay performing arts in page 924 – 930 given to Skeat at that time was from an actor named Che Husein from Penang. Thus, it is interesting that he relates Mak Yong to be of Siam instead of specific Malay states such as Pattani or Kelantan. Even if he were to relate this to Pattani, since the sultanate already fell to the Siamese power in 1785 and acknowledged through the Burney treaty in 1826, hence Pattani is still considered under the governance of Siamese power.

*Mengadap Rebab* on the hand movements shows the possibility of earlier roots using *canggai* as an important accessory for performance. We will again visit this argument in the later part of the study using cultural evolution approach to understand the probability of change in Mak Yong's costume tradition.

As we have gone through the micro-macro comparative analysis based on the cumulative distance, standard deviation and velocity graph, we can understand that while both *Mengadap Rebab* and *Hagoromo Shimai* have its own distinct quality that differentiate them to each other, we know that some emphasis is made for the choreography to highlight several important aspects of the dance. This is probably done to show the aesthetic of the costume or other important accessories, or simply to utilize the given space of performance. Some similarities between them can be observed in the pattern of the overall approach in the choreography, although more study is needed to decide whether the decision for this approach is circumstantial or affected by other factors. Among the important correlation to choreography are the performance space, costume and other paraphernalia that is used by dancers to communicate through the language of the dance. We also understand there is a possibility of change in tradition that was inherited in later generations. This can be seen through the choreography of Mak Yong where its primary focus is on the movement of the hands and it could be due to its past roots of having finger accessories. We will now move into the next section where we discuss how cultural evolution probably affected the form of Mak Yong we know today and the importance of using this micro-macro analysis as an approach to understand the cultural evolution study in performing arts. We will also look at the probability of how cultural diffusion of certain aesthetic traveled from one community to another.

#### **4.5 The Micro-Macro Analysis: A Chance for Cross-Cultural Observation in Cultural Evolution Study of Performing Arts**

In the comparative motion capture experiment; the micro-macro analysis proposed by Golshani had assisted us in processing the data before we could make a proper comparison through cultural evolution theory. We investigated the micro pattern of the choreography where it was broken down into smaller units of measurement.

Despite each dance being unique to its own locality, they shared one small aspect in the approach of feet movement. To understand this concept of probable cultural similarity, firstly, we looked at the nature of Mak Yong's cultural evolution in Kelantan and compared it with its variation in Riau and Serdang. One of the important Cultural Evolution concepts that is vital for our analysis is the discussion on cultural diffusion. We also visited other cultural evolution concepts that supplemented our understanding towards these processes of changes in cultural subject over time in the course of history.

The first observation and analysis in this section looked into the motion capture data and the performance with some contextual discussion on Malay sociocultural and aesthetic. Before we move into the data analysis of motion capture recording, we investigated the available information regarding the description of *Mengadap Rebab* dance by Ghouse Nasruddin in 'The Malay Dance' (1995). According to him, among the important elements of the Malay dance in general are slow and graceful. In addition to that, emphasis is done on the upper part of the body, mainly the arms, hands, wrists, torso, and the head. Even though these qualities are exceptional to certain dances such as *Kuda Kepang* and *Dabus*, it is only because of restrictions caused by hand props held during a performance. In addition, these hand props are also vital for the performance and gives it an identity unique to the tradition such as the hobby horse in *Kuda Kepang* dance and *anak dabus* in *Dabus* (a pointy iron rod). Within the discussion of this upper body emphasis in movements, a common concept that is shared among the Malay dance is the *sembah*. This concept of salutation has been a tradition in the Malay court's etiquette and will be performed by the Malay people in presence of their Sultan. As a court performance begins, the dancers will perform this gesture as a sign of respect prior to their performance. Although the movements of *sembah* are a separate tradition on its own outside of the dance, it is inevitably incorporated in the dance tradition. Due to some of these dance traditions being brought from the palace to the villages, it is understandable that some of the elements are still being performed today despite the change in the location of performance. Outside of the court, the *sembah* movement performed in Mak Yong and other Malay traditional dance can be understood as a gesture of salutation to the audience or in the case of *Kuda Kepang* and *Barongan*, spiritual connotations.

The complexities of hand movements in Malay traditional dance varies and Mak Yong are among of those who have intricate, fineness and complex choreography.

Ghouse further explained several hand positions important in Mak Yong. These are *pataka*, *suci mukha*, *Anjali*, *simha mukha*, *svastika*, *kataka mukha*, *samdamsa*, *sikhara*, and *ardha candra*. The positioning of the hand can be referred to in the pictures given below. For *sembah*, there are variations in executions among Malay dances and even different Mak Yong groups. In general, the movement can be understood as raising the hand from its resting place on the thighs towards the face, clasping both hands together flatly and finally closing the fingers towards the nose or forehead. In the variation of *sembah* performed within *Mengadap Rebab* for the motion capture, firstly the body was bent forward and at the same time the hands at the thighs were raised slightly at the side. Slowly, it changed into a curl before being flattened again as it moved forward with both arms straightens until each flatten palm touched the other. The arm then moved inward slowly while the torso and head still bent forward. As the hands moved inward, the head and torso moved back slowly to the original position. Meanwhile, both hands moved slowly from the fingers pointing towards the audience to a ninety-degree pointing upwardly as it finally rest on the chest. The sequence can be referred from figure 20 to 22 as a reference. This final position was called *sembah guru* by Ghouse (1995: 47).



Figure 29 – 31 (clockwise direction) Sequence for *Sembah* position

The sequence of *Mengadap Rebab* can be divided into four sections, which are sitting, kneeling, squatting, standing, and walking. The song *Sang Gendang* will commence the performance as actors will enter and sit in a cross-legged position. The position of the sitting is shown in figure 20 where the right leg will be crossed over the left while the left hand will rest on the right thigh and the right hand will be placed at the side. After the cue from *kepala lagu* (introductory measures) by the *Rebab* player, the lead actor, Pak Yong, will begin to sing and dance. All actors will follow Pak Yong's lead in unison, and these are the sequences of *Mengadap Rebab* written by Ghouse (1995: 47 – 49):



- i) *“Sembah guru sequence with the body swaying to the left and right repeatedly.*
- ii) *From the sembah hand position, the hands slides slowly as it move from the vertical position to horizontal position before finally changing into tangan seludang menolak mayang.*
- iii) *The move then changed into tangan sulur bermain angin before moving back into tangan seludang menolak mayang.*
- iv) *Tangan ular sawa mengorak lingkaran*
- v) *The hands rose to shoulder level with the fingers in the following position – the second, third and fourth fingers were outstretched while the thumb and first finger were held together – hamsasya. At the same time, the legs reassembled to the left and then to a kneeling position as the hands opened up into pataka stance.*
- vi) *The dance then squat, holding the hands in pataka stance while they turned in a counter-clockwise circle. On the completion of this circle, they sat as in the beginning of the dance.*
- vii) *As they sat, they executed the variation of tangan ular sawa mengorak lingkaran.*
- viii) *Repeat tangan sembah guru.*
- ix) *Repeat movement (v) twice. At the end of the second repeat, the dancers are kneeling on the left knee facing 45 degree to stage right.*
- x) *Repeat variation of ular saawa mengorak lingkaran twice.*
- xi) *Variataion of tangan liuk kiri longlai ke kanan.*
- xii) *After this, the dancers returned to the squatting position and executed tangan ular saawa mengorak lingkaran.*
- xiii) *Variation of tangan liuk kiri longlai ke kanan is repeated with the right hand.*
- xiv) *Berdiri tapak tiga menghadap timur jaga (standing and facing the east). The completion of berdiri tapak tiga marks the end of the sitting and kneeling movements of the hand.*
- xv) *The second part of the dance consisting of standing and walking movements began with tangan susun sirih movement, which brings the dancers from a squatting to the standing position.*
- xvi) *Tangan sirih layar.*

- xvii) *Variation of tangan seludang menolak mayang.*
- xviii) *Repeat movement (ii)*
- xix) *Variation of tangan seludang menolak mayang.*
- xx) *Pergerakan pak yong berjalan.*
- xxi) *The variation of tangan sirih layar was executed as the dancers took seven steps forward in a circle and then three steps backward.*
- xxii) *Repeat pergerakan pak yong berjalan.*
- xxiii) *The variation of tangan sirih layar is repeated, this time with the dancers taking three steps backward and one step forward before facing full front with the left hand in front in pataka and the right by the side in the hamsasya when the dancers close and open the circle.”*

However, the dance captured for this study has a slight variation within the sequence of movement in comparison to the one mentioned by Ghouse. According to one informant, Dr. Muhammad Fazli (UPSI), a dance academician at the Sultan Idris University of Education, he informed that there were at least three different variations of *Megadap Rebab*, which are:

- i) Khatijah Awang’s version
- ii) Istana Budaya’s version
- iii) JKKN’s version

The one that was learned for this study is similar with the one explained by Patricia Hardwick in her dissertation, performed by Fatimah Binti Abdullah (Kak Asmah). She is known to teach at several institutions such as University of Malaya, Petronas Performing Arts Group, Istana Budaya and National Academy of Arts and Cultural Heritage (ASWARA) (Patricia Hardwick 2009: 6). Here are the steps noted by one of the students in Sultan Idris University of Education:

- i) Mati Tari
- ii) Jalan Seri Rama
- iii) Mati Tari
- iv) Susun Sireh
- v) Mati Tari

- vi) Burung Terbang
- vii) Mati Tari
- viii) Gulung Belalai
- ix) Mati Tari
- x) Melimbai
- xi) Melimbai Masuk Barisan
- xii) Mati Tari
- xiii) Gelek Kacang
- xiv) Pecah Barisan dengan Kedek Itik
- xv) Mati Tari
- xvi) Kedek Itik
- xvii) Kedek Itik Cari Pasangan
- xviii) Mati Tari
- xix) Burung Terbang Pasangan
- xx) Mati Tari
- xxi) Sasang
- xxii) Mati Tari
- xxiii) Balik Tempat Dengan Kedek Itik
- xxiv) Mati Tari
- xxv) Tanduk Kerbau
- xxvi) Mati Tari
- xxvii) Gelek Kacang Setempat
- xxviii) Mati Tari
- xxix) Seri Rama Sebelah
- xxx) Jalan
- xxxii) Kedek Itik
- xxxiii) Sembah

Another respondent, a student at the same institute also mentioned that there were slight variations of performing *Mengadap Rebab* between different instructors of Mak Yong lessons in the university. The same variation had also been observed by Patricia Hardwick especially regarding the notable differences between *Mengadap Rebab*

performed by Fatimah Abdullah and the one performed by Mak Yong artists in the village (*ibid.*: 159). These variations, most of the times are subtle such as the sequence of movements, the movement expressive quality or the position of the hands. Despite these differences however, Mak Yong artists understand a general idea on Mengadap Rebab dance across different groups in Malaysia. Similar movements between these variations include the *Sembah, Sawa Mengorak Lingkaran, Susun Sirih, Liuk Kiri Longlai ke Kanan*. Although the naming of the movements too at times are different to one another, depending on the group, community or the instructors.

As *Mengadap Rebab* movements are executed, the *Pak Yong* will sing the song of *Mengadap Rebab* accompanied by the musical ensemble. The lyrics shown below were taken from the translation work by Ghulam-Sarwar (1992: 4 – 5).

*Original Malay lyric:*

*“Royat hilang berita nak timbul*

*Timbul nak royat*

*Seorang Raja sebuah negeri*

*Seorang Raja sebuah Menteri*

*Raja ada dengan menama*

*Negeri aada dengan bergelar*

*Seorang Raja siap memakai*

*Alat kelengkapan memangku negeri*

*Ambil seluar sarok ka kaki*

*Ambil baju timang ka badan*

*Baju melenkit di kulit manis*

*Ambil selindang pakai ka pinggang*

*Selindang menama Kain Cinda Jantan*

*Ambil pekong lilit ka pinggang*

*Tujuh lilit bertemu punca*

*Pekong menama Pelangi Silang*

*Ambil keris selip ka pinggang  
Keris kecil kerajaan  
Tongkat kecil kesakitan  
Keris ada dengan menama  
Keris menama Sepanah Berang  
Rentak di pangkal membunuh lawan  
Rentak di tengah telaga darah  
Rentak di hujung gagak lapar*

*Ambil setangan iseh tenggek di dahi  
Tenggek kanan memangku negeri  
Tenggek kiri mengadap perang*

*Liuk ka kiri liuk ka kanan  
Amba lunglai kiri lunglai ka kanan  
Liuk lintuk gemulai balai  
Seperti denak menanti lawan  
Seperti sulur bermain angin  
Seperti gajah melambung belalai*

*Sirih kami luyah dijunjung  
Seludang kami menolak mayang  
Bembang kami gugur di tapok  
A yong dei... dei... dei... wei*

*Bom wei... membalik tipus  
Dagan kami membuang cela  
Sawah mengorak lingkaran  
Amba berdiri tapak tiga  
Amba nak pecah tapak tiga  
Mengadap kami ka timur jaga”*

English translation:

*“The saga is about to begin  
Of a Raja and a country  
Of a Raja and a minister  
The Raja, he has an appellation  
The country, it has a designation*

*The Raja, he prepares, wearing  
The complete regalia of office  
His royal trousers, his royal shirt  
Fitting tightly to his skin*

*The Raja he wears his selendang (shawl)  
Wears it about his waist  
The selendang, it is named  
Kain Cinda Jantan  
The Raja he gathers his sash  
Wraps it around his waist  
At the seventh wrap he encounters the end  
The sash it has a name  
The sash it is called Pelangi Silang*

*The Raja, he secures his keris  
Slips it into his waist  
The short keris of government  
The short staff of sakti  
The keris, it has a name  
The keris, it is called Sa-Panah Berang  
The curve at the hilt is death in the war  
The curve in the centre it is the well of blood  
The curve at the tip it is the hungry crow*

*The Raja he takes his setangan iseh*

*Perches it on his forehead  
Perched to the right he rules the country  
Perched to the left he braves the war*

*Slanting to the left, slanting to the right  
We sway to the left, We sway to the right  
Slanting to the centre we return lissome to place  
Like th jungle fowl eager to fight  
Like the shoots dallying in the wind  
Like an elephant swaying its trunk*

*The betel-leaves we bear on our heads  
They swoon in the carrying  
The sheaths they aarae pushed open  
By the bursting palm blossoms  
Our solitudes they are destroyed in the bud  
A yong dei... aa dei... dei... wei*

*Bom wei... returning to our position  
Our yams they shed off their blemishes  
The padi-sawahs unwind their curves  
We stand on three points  
We end the stand on three points  
We salute the awakening east.”*

After *Mengadap Rebab* ends, the actors will play the first sequence of the story where the king will bid farewell to his wife and the handmaiden of the palace. He will seek out his companion, *Peran Tua* requesting him to call upon *Peran Muda* to appear before him. The story will then unfold during the meeting between these three characters.

#### *4.5.1 Significance of Mengadap Rebab in the Body Movement Context of Mak Yong*

As we have gone through the sequence of *Mengadap Rebab* dance movement and reading the data from the motion capture, we noticed several important aspects in the choreography of the dance. The first aspect concerned the position of *Mengadap Rebab* within the structure of Mak Yong performance. We discussed this aspect in relation to the pattern of body movements from our motion capture data. In general, the *Mengadap Rebab* significance within a Mak Yong performance structure cannot be overstated. Ghulam-Sarwar noted this sequence as,

*“Both in terms of dance patterns and music, Mengadap Rebab is the most elaborate single event in a Mak Yong performance, apart from the spiritual business that forms a part of ritual (berjamu) Mak Yong performance.”*

(Ghulam-Sarwar 1992:1)

He then further elaborated the performance as a preparatory phase for the whole ensemble, especially for the actors. It serves two purposes which are salutation the instrument or the invisible beings and secondly the psychological preparation before the commencement of the play. Mohd Kipli further extended this discussion by explaining the position of opening dance and rituals into several aspects of space in Mak Yong (Mohd Kipli 2015: 53 – 55). In the metaphysical space, two elements are concerned, which can be divided into space in the performers and space in the audience. In the performers space, the rituals open a crossed path between physical and metaphysical space. Thus, we have two elements here which are the physical and metaphysical performers. At the same time, the audience is experiencing a physical visual performance by the physical performers. Meanwhile, the performers of metaphysical space (i.e the spirits) influenced the performers in the physical space. This explains the performers performing Mak Yong in two different spaces simultaneously. The second aspect of space concerns the space in the audience, and it can be defined similarly albeit in a slightly different context. As the path is opened, the audience within the metaphysical space will enter the physical space and influence the audience. In turn, the audience will not feel bored or tired from watching Mak Yong the whole night. Thus, it can be said that both the physical and metaphysical audience shared the same but different space with the metaphysical audience.



Here we are presented with several important significance of Mak Yong's *Mengadap Rebab* in the context of body movements. Our first discussion focused on its relation to the physical space of Mak Yong performance with a reference to the layout given by Mohd Zulkipli (A. S Hardy et al. 2015: 50). If we refer to the layout given and understand the flow of the performance made extensively by previous scholars (Ghulam-Sarwar, Matusky, etc reference), we will notice that the performance does not have space for the actors to change into a character. In comparison, if we look at the layout of Noh stage, there is a small space called '*Kagami no ma*' or the mirror room for this purpose so that actors can change into other characters if the story requires (Kunio Komparu 1983: 126). Of course, this is not the best comparative example due to the vast cultural difference in function and historical background between both arts. This leads us back into the argument of possible genesis of Mak Yong that lies on shamanistic tradition. According to Ghulam-Sarwar, the spiritual root of shamanism is so strong that without these elements, there can be no performance (Ghulam-Sarwar 2018: 31). Therefore, our further question will be on the connection between features of Malay architecture and the shamanistic traditions towards the performance structure. How can the connection be made towards establishing the performance space that is being practiced by generations of Mak Yong practitioners? It is important for us to ask these questions to learn the position of Mak Yong in the Malay consciousness. We could only presume its position based on these early connections that mainly focus on the spiritual aspect of the performance rather than purely entertaining. If the physical space of Mak Yong changes dramatically to include space that acts as a changing room, then the function of dance sequence such as *Mengadap Rebab* and other rituals will become pointless and redundant. Furthermore, due to the tradition of keeping only twelve stories as the only authentic Mak Yong stories, make it unnecessary to change the performance structure in accordance with time. If there is a room for new stories to develop within the tradition, then perhaps the physical space and layout might change more dramatically due to probable high rate of mutation in developing new stories. This begs the question on the elements of spectacle within the Mak Yong and its healing tradition that seemingly focuses on the interaction between the patients and the healer rather than artistic pursuit in new dramatic narratives. In addition to the various competing modern entertainment, this could further suppress the need to change the tradition and pursue such endeavor. A recent study looking into the relationship between *Main Puteri* and Mak Yong in Raman further enhances our understanding regarding the situation within the Malay community

in the area (S. F. Alfian 2020). In our discussion regarding the sustainability of the art form among the Malay community, it seems that the activities of spiritual healing increase the chance of having new members resulting in the sustenance of its tradition. With shamanistic healing activities having more frequency than the full Mak Yong performances, this decreases the probability of innovation within Mak Yong tradition, as random mutation will likely happen in the healing tradition instead. Conclusively, the position of *Mengadap Rebab* within the performance structure encompass the most beneficial cultural trait that would sustain the tradition; shamanistic elements. With its dual function together with *Main Puteri*, it provides more opportunities to include new members into the community while giving them services that would benefit the practitioners and the members of community. As such, the result is the physical and metaphysical space of performance that caters to the need of the community and sustain the tradition.

Our second discussion will be on the position of hand movements within the performative context of Mak Yong's *Mengadap Rebab*. As informed by various literary sources on past studies on Southeast Asia, we understood that Indian cultural influence is the earliest one to arrive in Southeast Asia and even predates the Chinese. Inevitably among the cultural influences that mark a permanent impact on local culture is religion and the culture surrounding it. Several Indian influences in the local theatre were identified according to James Brandon which came from the Brahmanism, Indian epic literature, Buddhist Jataka stories and the Indian-style dance (Brandon 1967: 15). However, early states such as Funan did not leave us with any archaeological dance imagery for us to understand the nature of Indian-influence culture at that time. In the later period such as in the kingdom of Champa, Pyu between 6<sup>th</sup> to 10<sup>th</sup> centuries, dance imagery in the archaeological findings showed the influence of Indian culture with elements of local Southeast Asian as well (Miettinen 2008: 99, 113 - 114). Despite the difference between dance imagery in India and early kingdoms of Southeast Asia, one main similarity was observed— the prominent use of hand movements and position. From the data presented with the supplemented information regarding the Malay dance aesthetic, the role of hand movements plays a vital element in reflecting Malay aesthetic preference. The use of hand in *Mengadap Rebab* symbolizes two meaning, which can be understood as a gesture of appreciation and respect. Appreciation as we observed and learned from previous Mak Yong studies is a gesture towards the audience who are appreciating the performance. The gesture of respect in the context of *Mengadap Rebab*

performance is given towards the invisible beings that are also responsible towards the success of a performance. As noted by Laderman, the Mak Yong and *Main Puteri* practitioners that she observed at the time consider the spirit that they called Dewa as a spirit that should be regarded with courtesy,

*“... his reference to them as “foreign prince,” are fitting treatment of exalted beings. As an earth spirit reminds the minduk, “We ‘people of the earth must be taken seriously, spoken to nicely, treated with courtesy.’”*

(Carol Laderman 1993: 96)

However not all spirits are equally royal in status as some will be regarded as lowly and easily deceived during the healing ritual (Laderman 1993: 94). Spirits especially those who are associated with the royalty characters performed during Mak Yong performances such as Dewa Muda (Carol Laderman 1993: 308) are some of the royalty spirits within the definition described above. In the Malay social world, the hand is an important communication tool especially during social communication with those of higher social status. A Malay will often greet someone by extending their hands as a friendly gesture during socialization. Failing to do so even with those who they are close to will mean ill and to some extent, hostile. Even when he or she sees someone they recognize; the hand will be waved to show familiarity and friendliness. In a setting where one is in the presence of a royalty, a certain etiquette is to be expected. In his book *‘Adat Resam dan Adat Istiadat Melayu’*, Syed Alwi Sheikh Al-Hadi wrote on the proper etiquette when meeting with the Sultan, translated by the author (Syed Alwi 1986: 57 – 58).

*“The etiquette during an audience with the Raja:*

- (a) When having an audience in the courtroom or in anywhere else, the sembah will be directed to:*
- i) Only to the Yang Dipertuan Besar or Sultan, only if Yang Dipertuan Muda or Putera Mahkota is also present together with the Sultan in the event.*
  - ii) Only to the Yang Dipertuan Muda or Putera Mahkota, only if the Bendahara is in the presence together with the Yang Dipertuan Muda in the event.*

- iii) *Only to Datuk Bendahara, only if Datuk Bendahara is in the presence together with Datuk Temenggung.*
- iv) *Only to Datuk Temenggung if only he is the only one in presence during the event or audience.*

*(b) The etiquette of Sembah*

- i) *The etiquette of performing sembah to Yang Dipertuan Besar or Sultan starts by the open the palm of hand and arrange the fingers closely to one another (Menyusun jari). Then the both palms will meet one another and place on the forehead between the eyebrow. If one should excuse oneself after the audience with the Sultan, they should no turn away immediately in front of the Sultan after performing sembah. They should move three steps backward after the sembah, immediately kneel and performing another sembah, afterward slowly get up from the position and move another three steps backward slowly before finally moving out of the event or audience with the Sultan.*
- ii) *The sembah towards Yang Dipertuan Muda, Raja Muda or Putera Mahkota should be done by placing the meeting of both palms at the tip of the nose.*
- iii) *The sembah towards Bendahara or Temenggung should be done by placing the meeting of both palms underneath the chin.*

*Reminder:*

*The customs and etiquette of the royal family of old on sembah is that it should be perform in sitting or kneeling position with right knee exposed and the left leg folded inside. It shall never be performed while standing nor walking.*

*(c) The etiquette of speaking to or in front of the Raja*

*For all subjects under the Raja's sovereignty, regardless of his social standing shall never raise their voice or speaking rapidly, nor shall they scolding, shouting, or screaming, nor acting rudely or look fiercely as it is against the etiquette of Malay royalty and is consider as rude. What is require is to talk respectably and in a softly manner as a sign of respecting their Raja."*

Here we are presented with the evidence on the importance of hand communication in the Malay social world especially between different social classes. There is even a notion of elaborate hand and body gestures in traditional etiquette between a subject and their king. The symbolic meaning of the *sembah* does not differ from its Indian source. Carroll explained the use of *Anjali Mudra* within the Mudras of India is similar where one should place both hands above the head for deities, in front of the face for elders and teachers or in front of the chest for others (Carroll 2013: 44). As Southeast Asian polities in the past adopted Brahmanism which is the believe on the existence of god-king, the reincarnation of the Hindu god Vishnu or Shiva (Brandon 1967: 16), these values were inherited and still being practiced in the modern era throughout the Malay sultanate institution of the Peninsular. This inherited value of Brahmanism is also reflected within the narration of Mak Yong's story itself where the king is not merely a mortal but also being regarding as having qualities of a god-king (Hardwick 2009: 126, 129 & 148). Hence, the use and the function of hands in Malay communication will determine the nature of your presence towards your audience, or the second speaker. Without establishing your nature towards your audience or the second speaker, this will disrupt the chemistry of the conversation and may affect the deliverable of your message in the communication as they do not know your intention. Depending on your intention as a speaker towards your subject, the rule of body communication in Malay culture needs to be understood first prior to engagement and delivering a message. This is where the position of hand movement is essential in Mak Yong's body performance culture and how it is also important within the structure of the performance.

As we have discussed on the position of hand movements in Mak Yong's body performance culture, our next discussion will focus on the position of *Mengadap Rebab* within the role of human body as the bridge between physical and metaphysical world. Numerous studies were done in the aspects of shamanistic traditional healing area discussing the convention of *Main Puteri* or Mak Yong – *Main Puteri*, the healing rituals itself to the symbolisms behind the nature of the performance. Among the significant contributions and extensive discussions towards the literature other than Ghulam-Sarwar include Carold Laderman (1993), Patricia Hardwick (2009) and Suan & Mohammad Afiq (2018). In 'Taming the Wind of Desire' by Laderman, she discussed her fieldwork in Terengganu from 1975 to 1977 on *Main Puteri* healing rituals. Due to the close connection between the shamanistic healing traditions of *Main Puteri* with Mak Yong,

she also discussed some aspects of Mak Yong in relation to the ritualistic healing of *Main Puteri*. Through her participant-observation, several spiritual aspects within the belief system of Mak Yong and *Main Puteri* can be understood, especially with respect to the position of human physical body. The community observed by Laderman believed that the spiritual well-being of a person need to be in balance with the physical well-being. The imbalance could occur due to attacks from external forces as the *semangat* of one's body is weakened either by physical illness, overwork, shock or fright (Laderman 1993: 62). Other aspects of illness that requires the intervention of *Tok Puteri* was also discussed by Ghulam-Sarwar (2004) and Patricia Hardwick (2009). Thus the role of a Shaman is to invoke inner winds of his patient so as to strengthen their own spiritual immunity against attacks by spirits or their own imbalance inner being. Prior to achieving this however, several conventions need to be followed through. Amongst the processes involved including providing offerings, proper incantations, opening rituals and musical numbers. The same structure can also be seen in Mak Yong where elaborated opening ritual was observed (Ghulam-Sarwar 1976: 146). The positioning of *Mengadap Rebab* in relation to the performance structure and body movements in Mak Yong community falls within this area. The importance of *Mengadap Rebab* is not only as an opening number act, but also as the important stage to mediate between the physical and the metaphysical world. Often Mak Yong players during Patricia Hardwick's observation saw *Mengadap Rebab* as a ritual where they pray for the safety of the whole community during the performance, players, and spectators alike. The players also hoped to be given inspiration for them to execute the stories as best as they intended (Hardwick 2009: 127). *Mengadap Rebab* also embodies the notion of Malay culture that upholds the importance of context and explanation before addressing one's concern and intention. Prior to attempt one's concern or addressing any issues in the social context, a proper salutation or a gesture or respect must be given accordingly especially when one's audience is a person of higher social class. This is especially important in a social event where one's entering the realm of another's domain of privacy whether in terms of physical proximity or idea. Some examples can be seen in a Malay custom given by Syed Alwi (1986: 58 - 60). The same can be seen in the function of *Mengadap Rebab* as it not only acts as a gesture or respect towards the invisible beings but also towards the audience as well. Adding to this, these invisible beings that are highly respected by the community as observed by Laderman (1993: 96) are being regarded as royalty like a Sultan or king. Thus, it is imperative that correct respectful gestures are observed within the opening of

the performance to ensure the spirits in the metaphysical world will not bring harm to those attending or performing in the event. As the community itself gained benefit from the entertainment and the performers are able to revitalize their inner wind, it also adds another key factor in having a balanced physical and metaphysical world.

As we mentioned the role of hand movements within the performance of *Mengadap Rebab*, we also investigated the less emphasised part in the dance, which is the movement of the feet. This third discussion focused on standard deviation data from the motion capture recording supported by previous studies. From the given data, we understood that there is a similar pattern between the choreography of both Mak Yong and Noh with respect to the movement of the feet in the vertical dimension. However, we could not make the connection between the two art forms historically. There is a possibility that there are conditions that could result in similar approach for both performing arts. In the work of Patricia Hardwick, she noted on the impact of traditional costume towards the choreography of movement. In the past, the use of *berkemban* as costume for performers could restrict the movement of the dancers (Hardwick 2009: 131-132). Additionally, according to the Mak Yong artists during her study, the aesthetic of Malay dance requires the movement of women to be small and graceful (*ibid.* 131). This is how Mak Yong dancers show their skill and beauty in the refined dancing movements. It seems that there is a connection between these two factors that would prompt further investigations in the future to confirm its relationship. In the art of Noh dance, there are two main sources that confirm the relationship between the costume and the choreography of movements in Noh dance. The first will be the written Noh treatises by Zeami Motokiyo translated by J. Thomas Rimer and Yamazaki Masakazu. As a renown Noh artist of his time, his treatises enlightened many technical, aesthetic, and philosophical aspect of Noh art dated from the Muromachi period of Japan between fourteenth to fifteenth century. In one of his major works, *Fūshikaden* (風姿花伝) completed in 1418, he elaborated important aspects in Noh training including mastering the three type of characters; women, old man and mad persons. For the women role,

*“If the actor’s style of dress is unseemly, there will be nothing worth watching in the performance.”*

(Rimer & Masakazu 1984: 10 – 11)

*“When performing kusemai, shirabyōshi or mad women’s role, the actor should hold a fan or a sprig of flowers, for example, loosely in his hand in order to represent female gentleness. The kinu and hakama, as well, should be long enough to conceal his steps, his steps, his hips and knees should be straight, and his bodily posture pliable.”*

*(ibid: 11)*

Not only is the importance of costume vital for impersonating or becoming the character, Zeami also commented on the general aspect of Noh performance,

*“No matter what the role, bad costuming will never be effective, and, in the case of a woman’s role, proper dressing is essential.”*

*(ibid.)*

In terms of our observation regarding the data recorded in the motion capture, this is confirmed by Zeami’s writing later in the same treatise,

*“The most important aspect of movement concerns the use of the actor’s entire body. The second most important aspect concerns the use of his hands, and the third, the use of his feet.”*

*(ibid.: 27)*

In his elaboration, we understood that the aspect of costume is important not only for the aesthetic appearance of the character or the attempt at its impersonation but also on some of the effect that it will have on the character. Thus, a Noh actor should as much as he can, take great care to choose the most appropriate costume for a character as this will also reflect his desire to perform as noted by Zeami (*ibid.:* 11). Additionally, an actor should not only consider the importance of costume but also the quality one should bring together with having them in a performance. The interaction that one should have with the costume brings the art alive and meaningful for its audience. This is further elaborated



in our second source 'The Noh Theater: Principles and Perspectives' by Kunio Komparu. He mentioned,

*“The lush silk Noh robes contrast strikingly with the bare wooden stage, creating a kind of harmony of incongruity. Yet another example of the symbolism in Noh is seen in the skillful use of the natural tendency of the human eye to see bright things as large and dark things as small: the waki is usually clad in matte fabrics of dark colors, showing that he is a shadow character, while the shite is robed in richly colorful, lustrous costumes, representing revelation. Because of their outstanding texture, color and form, Noh robes are often appreciated simply for their weave, embroidery, and patterns and indeed they are of great historical and cultural interest. Like masks, however, they come to life only on stage, when they are made three-dimensional and moved about, for their true beauty lies in the form they make moving through space and the flow of their distinctive straight-line cut.”*

(Komparu 1983: 240)

These may be lengthy explanations but important as part of the discussion as it demonstrates how the relationship between the Noh costume, its function, aesthetic and also choreography could be formed if we analyze them together with the explanations given by Komparu's predecessor many generations prior, Zeami. In another part, Komparu demonstrated the functionality of costume towards the discipline of the performance,

*“...the tabi of Noh—flat-bottomed fitted socks of white cotton cloth—keep the dancer in constant contact with the ground...”*

*“Noh actors always move in the gliding walk. The upper body is tilted slightly forward, and many important movement patterns involve the head (with the mask) and the arms (with large sleeves, fan, and props); thus much of the interest of the performance is created by the upper body. However, it is the walk, centered in the hips, that transports the character horizontally through space. The actor maintains the level, never bobbing up and down, even when moving quite rapidly. This is why the stage surface is so smooth. The actor uses moments of stillness and variations in the speed of the walk to give*

*character to the role and express modulations in feeling. Foot movements are an important part of the acting technique: a few halting steps backwards indicate dissatisfaction, and two or three rapid steps forward show excitement.”*

(*ibid.*: 220 – 221)

Comparatively, the explanation given by the Mak Yong artist exhibits the oral historical narrative based on the customs and traditions that they inherited. Meanwhile both Noh actors in different era explained the connection through their experience and reaction in addition to the basic functionality and aesthetic that comes with the costume tradition. While Mak Yong emphasises movement focusing on the hand movements, a similar approach was chosen in the Noh tradition to focus on the movement of the body and hands. Although in Mak Yong, there is less emphasis of movement on the feet as it only takes part in certain sequence of the movement due to the importance of hands as part of the aesthetic and communication function. In Noh however, the feet are the driving part of the aesthetic that makes the movement meaningful as the body needs to occupy the space on stage. Without the help of the feet, the static body will be just as useless as a hanging cloth as the body loss its meaning due to the absent of the actor that drive its movement. However, the feet are never the center of the action nor takes part in the visual aspect in the performance. The meaningful visual aspect still relies heavily on the body and hands. Even so, what makes it visually attractive is only curiosity of the audience towards the skill of the actors on moving their feet in relation to the action and dance happening on stage. We can conclude that what is meaningful for both Noh and Mak Yong is only concerning the part of the body that is useful to express the performance aesthetic on stage although different approaches towards achieving this is observed. Both Mak Yong and Noh only consider the action involving the upper part of the body including hands as meaningful for the aesthetic in the art instead of the feet.

In conclusion, our motion capture data had demonstrated a connection between elements that affected the body movements with choreography. Through the features of local architecture, the significance of dance in cultural communication and ritual context and finally the local aesthetic preference on meaningful movement created by certain parts of the body, resulted in the creation of dance sequence that both embodies the local aesthetic and identity. However, we also need to remember that the local economy, the climate, and the social network of different levels in the society especially with regards

to the trading activity that is the channel where cultural influences spread into the community also indirectly influence these contexts of preference. This can be clearly seen in the manifestation of the material culture that was evidently observed in the archaeological findings. While our understanding on the movement patterns could only be reached through the motion capture data, the building blocks that inspired the creation of this cultural subject should not be cast aside. Perhaps further investigation into this aspect needs to be taken in the future to construct a better understanding in connecting the elements that give inspiration towards the building of traditional performing arts culture. Another important aspect in our study was the use of motion capture data to analyze the disconnection of historical data in Mak Yong. In order to understand this and make the connection between Mak Yong ethnographic data from different periods, we used the microevolution concept.

#### *4.5.1 Addressing Mak Yong Missing Historical Narrative Through Cultural Evolution*

As mentioned earlier, one of our main objectives in this study is to investigate the discontinuity of ethnographic data on Mak Yong. The reason being is that we need to understand how cultural evolution occurred in Mak Yong that caused this discontinuance of data to happen. The analysis so far managed to explain the indirect influence of environment, cultural and social elements towards the choreography of Mak Yong dance. This will be the first step towards understanding the nature of cultural evolution in Mak Yong. Our next step will determine how these influences also contributed to the microevolution process of Mak Yong. Prior to the analysis, we addressed the available literary sources on the differences between various ethnographic data on Mak Yong especially with regards to the aspect of costume. There are mainly two components of the costume that is no longer being used by Mak Yong in the Peninsula today which are the mask and the fake fingernails called *Canggih*. In contemporary time, *Pak Yong*, and several other characters wore bangles to aesthetically enhance hand movements (Marlenny 2017: 201). However, this is not the case with the previous ethnographic data recorded by Skeat and the photographic evidence from Leiden University (Skeat 2015: 925, G. R. Lambert & Co. 1903 (A) & (B)). Both records show the use of *Canggih* other than the use of mask as part of the costume for *Peran*.

In our attempt to connect all the related reports by Skeat and much later Ghulam-Sarwar (1992, 60) on the use of *Canggih* in Mak Yong, we found it strange that the region of Pattani – Kelantan, where it was claimed by Mubin Sheppard (1972, 58) to be the birthplace of Mak Yong<sup>12</sup>, does not use *Canggih* as their finger accessories. It is illogical to think that both Riau and Serdang variations of Mak Yong coincidentally came up with this new tradition of using *Canggih* as part of its tradition simultaneously despite both located approximately 800km apart. Through reports by Pudentia (2010) and Ghulam – Sarwar (1992, 58), both variations of Mak Yong is reported to be tied to the traveling Mak Yong troupes from the Malay Peninsula. Pudentia claimed Riau’s variation came from a Kelantan group and Ghulam-Sarwar claimed the Serdang variation came from a Kedah – Perlis group. If this is the case, then perhaps this could be the reason why the tradition of using *Canggih* in the past was shared with other related performing arts around the region such as *Lakhon*, *Mek Mulung*, *Menora* and *Khon* as reported by Skeat more than 100 years ago (Skeat 1900, 924 - 928). It is also of no coincidence that together with *Canggih*, the tradition on the use of mask is also shared by some of these traditional performing arts coming from the northern and northeastern of Malay Peninsula including *Awang Batil* from Perlis (Sweeney 1973). Furthermore, there is a recent study on the oral story of mask usage for Pattani Mak Yong in the past where it claimed to be abandoned after the widespread of Islam in the Pattani royal house (Syafiq Faliq 2020). Therefore, with the given information, this could also link us to the Mak Yong mask tradition in Serdang and Riau that was claimed to be spread by Mak Yong group from the Peninsula. Pudentia also foundd it interesting that the use of mask in Mak Yong Riau was brought by a Kelantan group (Pudentia 2010: 4) despite there is no physical evidence to support that the group in Kelantan once used the mask in their performance other than the report made by Cuisinier (Cuisinier 1936: 88). The translation of this report can be read as below,

*“The two actresses optionally add to their costumes, rings, bracelets, earrings and gold chains around their necks. It remains to mention the mask (topeng) of the jester although it is not always used in Kelantan. In Patani, Perlis and Kedah, on the other hand, representations of ma’yong are almost never performed without the jester being masked; often the jester wears a man’s mask and a woman’s mask alternately, or two*

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<sup>12</sup> Ghulam-Sarwar argues this theory of origin in his latest work. See Ghulam-Sarwar 2018, 7-10.

*jesters present them together; however, the wearing of the mask is not continuous, it is only an interlude occupying two or three scenes.*

*It is impossible to know if the masks were originally used as accessories or not. They are not found in any other magical dance, except in the wayang interludes which belong to a different cycle.*

*The man's mask is similar to the one we see in the Siamese show, manora, similar, at least, to the most common type of manora masks which has an extended play much more. It is a red wooden mask that hides the face only two thirds of the way; the mouth and the chin are left bare, but a moustache that descends from the protruding and pointed nose cuts the lips with two black scars; rooster feathers simulate hair and cover the top of the skull; small pieces of mother-of-pearl are often inlaid around the slit of the eyes. The woman's mask is not of a uniform type and this diversity is little help to know if there were two ritual models in the past, only one of which has survived, or if we find ourselves in the presence of borrowings made at random. Whatever the colour, shape and expression, the woman's mask regularly differs from the man's mask in that it hides the entire face and has no feathers.”*

How can we make use of this recorded data and connect it with our motion capture data?

The most appropriate attempt to connect this information is through the report on the use of *Canggai* with our motion capture data. Although we could not provide the connection between the motion capture data with the use of mask in the past, we instead used cultural evolution theory on the utilization of *Canggai* together with the mask as well, as they are often used together in the Mak Yong tradition. Based on the results obtained, Mak Yong in Kelantan and Southern Thailand exhibited the importance of dramatic actions through hand movements. This was clearly seen through velocity graph where change of movements is more rapidly seen in hand markers. These changes signify the importance of the movement for overall dramatic effect in dance symbolic communication. As we have seen in Noh where movement of the head and hand markers is significant in the x and y dimension to show the dramatic action, the same can be said to the hand movements for Mak Yong shown through the significant values in the velocity graph of the hand markers. Through the investigation, we understood that there could be a connection between costume and performance space towards dance choreography. Comparatively, the socks in Noh correspond to the role of feet movement

with the overall sequence in Noh dance choreography and character movements. In Mak Yong tradition, the costume in previous generations of Mak Yong performers could have its impact in the aesthetic and dance choreography. Both traditional performing arts exhibited different kinds of interaction between costume and dance choreography. While in Noh, it appeared to be a cognitive creative reaction towards the challenge of creating choreography that would highlight the important features of Noh dance, which is the elaborated costume, mask, and other accessories. However, in Mak Yong it exhibited different interactions, which can be understood as maladaptation. This concept can be defined as traits that is being inherited which no longer serve the purposes to the new environment (Mesoudi 2011: 35). In biological evolution, the skeletal limbs of whales and snakes are said to be the best example where it shows their connection to the quadrupedal ancestors in the past. The same can be seen in Mak Yong where despite the changes in the costume, it still exhibited the choreography of the previous style of costume. Additionally, there is another cultural evolution trait being exhibited through previous research done by Patricia Matusky. In her study of the Mak Yong community, she explained that there are elements of other traditional performing arts adopted by Khatijah Awang and included in the dance sequence of Mak Yong (Patricia Hardwick 2009: 129). This can be understood as two different cultural evolution concepts which are Lamarckian cultural evolution and diffusion. The former can be understood as cultural traits that was inherited by the next generation due to changes done by their predecessors during their lifetime. The latter can be understood as cultural trait that was being passed on due to the movement between different groups.

The evidence of this cultural evolutionary processes can be further supported through the ethnographic data obtained during the fieldwork in this study where some members in the Mak Yong Raman community also participated in other forms of traditional performing arts such as *Menora* and *Bangsawan*. Thus, it is inevitable that some elements of these performing arts were shared across the groups such as in the case of Khatijah Awang and her group. The community in Raman also showed to be a loose collective of artists where they shared their network and participated in different projects depending on the need of the one who led or managed the performance. This means that the same members of the community will have the knowledge on several forms of traditional theatre from its conventions to music and stories. Therefore, what can be understood on how cultural evolution occurred in the community through diffusion of culture traits is due to the variations that happened at two levels; micro and macro level.

Micro level involves variations among Mak Yong groups in terms of small elements within the tradition such as sequence of dance steps or preference in costume material or colour. The cultural traits that were inherited or passed on to the next generation came from within the extent of the local community such as the traditional performing art of *Menora*. In macro level, the possibility of variations among the groups due to influence from sources coming from outside of the community and was introduced in the tradition such as the use of different Malay dialects in Mak Yong Riau or Sumatra as opposed to the Northeast Malay dialect in the Peninsula. The shortened length of Mak Yong performance by Khatijah Awang for her group could also stem from her experience participating in modern media such as television and radio (Zahana & Habsah 1999: 14 - 16).

Through the behaviour of members in the community, we understood that there are two channels that will influence the variations between Mak Yong groups which are micro and macro level of social interaction. How cultural traits can be transferred or inherited between groups will depend on the extent of social network from each members of the community. To further understand this macro level interaction that causes variation in Mak Yong groups, we need to look at how political hegemony could cause outside influence to diffuse into the local community as well. In the context of Mak Yong, this will be the Siamese political hegemony on the culture of the Northern and East Coast Malay polities in the Malay Peninsula. Nevertheless, to focus on this discussion will be out of scope of this study<sup>13</sup>. We could however, present some of the possibilities for the Thai or other culture to influence the local Malay community based on the literary sources pertaining the social and cultural interaction with the Malay in the region. These possibilities are plausible as we have the observable manifestation of physical evidence in Mak Yong where the community once interacted with the community outside of the locality through the existence of *Rebab* as the important instrument in the performance. Other than the probable interaction with the middle-eastern or the Javanese<sup>14</sup> influence through the manifestation of *Rebab*, there were also social interactions between the Malay group with Thai and Chinese influence in the past. The interaction between the Malay and the Thai was discussed repeatedly in the previous chapters. The result of that

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<sup>13</sup> For the discussion on Thai hegemony on northern state of the Malay Peninsula and its effect on Malay dance, see Mohd Ghouse Nasaruddin, 1995, page 3 – 4.

<sup>14</sup> Other than the probable middle-eastern source, the *Rebab* is also prominently used as the Javanese musical instrument. For more details, see Malm 1967: 22, 67 and Ghulam – Sarwar 2014: 40.

interaction can be seen with the shared costume element between Malay and Thai performing arts such as the use of *Canggai* as reported by Skeat. While there is no recorded evidence of cultural exchange in performing arts between the Chinese and the Malay, there is also a probability that it had an impact on the formation of Mak Yong through the proxy of Thai as the intermediary. The interaction between Siamese and Chinese performing arts can be found in Simon de la Loubère's report entitled *Do Royaume de Siam (A New Historical Relation of the Kingdom of Siam)* written at the end of 17<sup>th</sup> century after completing his mission to Ayutthaya Siam in 1687 (la Loubère 1691: 47 - 49). Puchadiparom also explained the role of *mahorasop* as a sponsored festivity by the royal court since the Ayutthaya period where it included both Siamese performing arts of Khon (masked drama), Lakhon (dance drama) together with Chinese opera called Ngiu (Puchadiparom 2006, 3). Despite the interaction focused on the center of the Siamese power much earlier on in the 17<sup>th</sup> century, we must consider the probability of the cultural diffusion between them in this earlier period and how it would later affect Malay cultural traditions in the south, specifically after the invasion of Pattani by Siam in 1785. The northern and northeastern Malay states in Malaysia had already been under the suzerainty of Siamese power between 16<sup>th</sup> to 17<sup>th</sup> centuries. The invasion of Pattani in 1785 further solidified the foothold of Siamese power towards the Pattani sultanate. Therefore, if Mak Yong in the 19<sup>th</sup> and early 20<sup>th</sup> century shared traditions with Siamese performing arts through similar features in costume, perhaps there is also a probability where some of the early interactions between Siamese performing arts and Chinese opera could have descended or diffused within the Malay cultural traditions in later period before it was adjusted according to the local aesthetic. In addition, our literary findings suggest the socio-historical evidence pertaining to the existence of Chinese community further support this probability. If diffusion occurred, this could be possible through the process of Lamarckian cultural evolution as we have discussed earlier in the case of Khatijah Awang. Certainly, further investigation in future studies is needed to explore this possibility.

Within the micro and macro level of social interaction there is also another observation concerning the possibility of cultural evolution to occur. Through the ethnographic data obtained in Raman with the support of other interviews made with the community members, we understood the role of Main Puteri from the perspective of cultural evolution. As mentioned earlier on, the role of Main Puteri in the Main Puteri – Mak Yong relationship acts as a channel to expand the community by increasing the



probability of introducing new members in its ritual healing (S. F. Alfian 2020: 6). Therefore, there is a high probability that one of the reasons why *Main Puteri* and Mak Yong is able to maintain its function and relevance within the society is also through this shamanistic healing activity. Moreover, as the community expanded or maintained through this activity, this also increased the likelihood for mutation to occur as well. Due to the non-existing systematic inheritance system within the tradition, there is a high chance that cultural variations occurred due to the mutation. As each new member will most likely bring their own life experiences in practicing Mak Yong. Some of these experiences will inadvertently permeate into Mak Yong culture and cause variations to occur. Another possibility will be in the form of the extension of social network that caused the extended network to include new members that will most likely introduce new elements or create a variation within the tradition. The best example of this will be in the case of Khatijah Awang where she used influences from other types of performing arts and her experience as a performer in modern television and radio as an inspiration to improve Mak Yong performance (Hardwick 2009: 129 & 131, Zahana & Habsah 1999: 14 - 16). As a result, the performance of Mak Yong in the city of Kuala Lumpur and in the higher education institutions was kept at around one and a half hours with a compressed story-telling narrative that could be enjoyed by the audience in the city. Other elements such as improvements towards the quality of costuming for characters are possible through her efforts in performances outside of Kelantan. Another example of this cultural variation occurring is the recent case of Mak Yong performance in Kelantan led by Rosnan Rahman who is not only an experienced *Pak Yong*, but also worked as the director of cultural department in Kelantan. Through his efforts to convince the local government in allowing performances to make a return in its home state, several Syariah laws need to be abided and thus resulted in another cultural variation (Siti Rohana 2020). Both cases can be considered as exhibiting the feature of Lamarckian cultural evolution with guided variations.<sup>15</sup> It can be understood as changes with the cultural subject due to the changes made during the lifetime of its community members. The changes then are considered as the new cultural variation and being inherited by the new generation of community members where it is being regarded as the current tradition. In relation to the historical narrative of Mak Yong, this could be one of

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<sup>15</sup> Modification of knowledge by individual before it is being passed on to others. See Mesoudi 2011, 43 - 44.

its probable channels that resulted in the discontinuity of data throughout its one hundred years of research data. As some of these variations survived while others, such as in the case of Mak Yong Kedah and Perlis did not, this could be the reason why the contemporary understanding of its form is different than those recorded at the time of Skeat and Cuisinier. Nevertheless, how can we understand this nature of change within the Mak Yong tradition through Mead and Joas' approach to social action?

#### **4.6 Mak Yong as an Active Action**

In previous section, we observed several elements that contributed towards the existence of several Mak Yong variations. However, further analysis is needed for us to elaborate the process from the perspective of the individual in relation to others within the community. This will help us understand the probable changes within the community that would eventually lead to the variations across various Mak Yong groups. What we have observed so far is the pattern and channels of how variation could exist within a community and spread through social interaction based on cultural evolution theory. The individual element, the individual experience is also important within this discussion as it is part of the dynamic that catalyze new variation such as in the case of Khatijah Awang. Initially propagated by the individual actor through the impulsive action of 'I', these changes within the tradition are made possible if the community accepts it and successfully practiced over several generations. Thus, it will inevitably change the value system of the subject as time goes by. However, these changes will not instigate changes in the community willy-nilly without a specific social behaviour mechanism that enables it to become a tradition. We are already familiar with the non-individualism approach made by Mead and Joas to address the construction of self within the discussion of creativity in social action. To further understand this mechanism, it is imperative then in this section to approach the matter using the theory proposed by George Herbert Mead on the construction of the self, the concept of 'I' and 'Me' in social behaviourism. We also included the approach made by Joas through his creativity of action theory written to further understand how creativity is possible within the tradition before the community is adopting it as the new practice.

To answer the inquiries stated in the earlier chapter along with its nature, we decided to adopt the use of pragmatism philosophy as part of the foundation for our

methodology in this study. The philosophy of pragmatism has thus far assisted us in addressing these four elements concerning the study which are:

- a) Understanding the relation and effects of an object or subject to the philosophical questions of its properties.
- b) Multi-disciplinary as the approach to solve an inquiry.
- c) Pragmatism sees perception, cognition, emotion in human being as phases in action, not a separate sequence of action. Therefore, it sees action as an ongoing process.
- d) It sees action susceptible to failure and reflection will be made to reconstruct the process that fails.

The first element that discussed on the properties of the subject of interest can be applied to the effects of change within tradition and the limitation of certain methodological approach in understanding the nature of tradition. As one of the important traits in our subject of interest, it is not entirely effective to adopt a methodological approach that could not address the nature of change within tradition such as the thick description through ethnography or participant-observation. In addition, the application of this approach through pragmatism has helped previous scholars such as Mead in his philosophy of social behaviourism. This in turn, giving us a tool to understand the effects of environment and social relation between individuals in the community to the construction of the self in individuals and address its ever-changing nature within the community. The second element of this study calls for a multi-disciplinary approach that is able to compliment the shortcomings of solely depending on one type of approach as discussed in chapter two. The third and the fourth element was thoroughly discussed by Joas as he elaborated on the tacit assumption of sociality in the creativity of action theory (Joas 1996).

Through the philosophy of pragmatism, we understand the relationship of perceived objects in our environment with human cognition. This was seen in the works of Mead whereby his theory on social behaviourism is one of the important foundations of our analysis in this study. In order to begin the analysis on the connection between various data on Mak Yong over different periods of time with the current data using motion capture, understanding the historical narratives through documentation evidence is vital to make this connection. Through arguments made by Mead, the subject of

tradition, which in our case is Mak Yong, will not be possible without the existence of its community. Here, we can regard the tradition of Mak Yong as the 'Me' which sets the perceived understanding on the definition of Mak Yong according to its local community. The important discussion made by Mead in relation to the role of the individual and the community is that the response of the 'I' in creative expression is much more possible to be accepted by the community where the regulation of social conduct is different and more acceptable towards new invention in the tradition. As quoted by Mead,

*“An institution is, after all, nothing but an organization of attitudes which we all carry in us, the organized attitudes of the others that control and determine conduct.”*

(Mead 1934: 211)

Therefore, in an environment where a community migrated from their original location to another will determine how the conduct will be accepted. In the case of Mak Yong, if we are to accept our earlier assumption where evolution occurs through Lamarckian cultural evolution with guided variation, this will be possible in an environment where the organized attitude is less strict towards innovation within the tradition. If we are using the approach of Mead, then this would mean that the community accepting innovation within the tradition to have a much recent establishment on practicing the tradition. Comparatively, this environment will have to be practicing Mak Yong in a much later period within the history of Mak Yong. Coincidentally, this is true if we are comparing this with previous studies on communities in Kelantan, Sumatra and even Riau as Mak Yong was considered by the communities to originate from Pattani in the case of Kelantan. From Kelantan for Riau communities while for the Sumatran community, they made the connection to Kedah troupe. In either cases, either from Kedah, Kelantan or Pattani, it was mentioned by Cuisinier that the masked form was the dominant version as compared to the unmasked version, which was only being practiced in Kelantan at the time of her report. Even if we are to test this approach in recent times, we will find that such is also the case with Mak Yong under the guidance of Khatijah Awang where she introduced the modern version of Mak Yong in higher institutions and groups around Kuala Lumpur that is more simplified and less elaborative in terms of performance structure and duration. Despite having resistance to these changes made by Khatijah Awang, her

version is more popular in the urban areas where it could cater to the modern audience while the traditional performance structure is still prevalent in rural Kelantan and Southern Thailand. If this is true in the case of the introduction of Mak Yong to Kelantan and other areas from Pattani and Kedah, what we can infer from this observation in relation to our data is that despite the change in costume, the version of Mak Yong in Kelantan today (that was used as the source for the motion capture data), still inherited the choreography focusing on the hand as the main aesthetic of its movements despite no longer using the *Changgai* as accessories like its predecessor. While the observable change in Riau and Sumatran form can be seen through the use of a different Malay dialect, stories or even musical instrument such as the non-use of *Rebab*, the change in Kelantan is by the non-use of masks and *Changgai*. This can be seen as the reactive part of the self, the 'I', which is impulsive and unpredictable in nature as Mead suggested. While Joas reiterated the approach of 'end-in-sight' concept by Dewey, she suggested that the goal of these changes might not be as simple as determining the means-end schema of traditional social action. This means that these changes might be in response towards the availability of resource and social relationship in the course of time but we might not be able to determine its exact motivation without further evidence. However, from the oral source during our fieldwork in Raman, Southern Thailand, the drastic change of palace artists needing to embrace Islam wholeheartedly by abandoning their paraphernalia might suggest a probable cause (S. F. Alfian 2020: 10). In addition, Ghulam-Sarwar also mentioned the banning of Mak Yong and Menora performance by the Sultan of Kelantan in Hikayat Seri Kelantan (Ghulam-Sarwar 2018: 4, M. Taib 2004: 85 - 86), marking the earlier ban on the art form prior to Malaya's independence in 1957. Meanwhile, the Buddhist-related performance of Menora still utilize the mask in their performance and one informant, Mr A, admitted that there is an oral tradition in actor's dialogue that mentions '*Mak Yong Topeng Menora*' as part of the performance to celebrate the occasion in one of the Mak Yong stories. If this is true, then perhaps, there is a distinction made to separate the identity of Buddhist-related traditional performing arts with that of the Malay Muslim communities by a certain social class due to its values that are not in line with Islam. However, despite this probability, our interest for now should focus on the dynamics that separate the identity of Malay Muslim to that of non-Muslim and how certain Malay Muslim communities still uphold folk tradition that predates the coming of Islam in the region. The position of the *Mengadap Rebab* sequence for example, despite being less elaborate in modern performances in urban

areas around Kuala Lumpur, still retain the importance of several gestures particularly the act of '*Sembah*' or *Anjali Mudra*. If we are using the approach of Mead and focusing on the values of the community, there is a high possibility that the prevalence of this tradition within Mak Yong has a connection with the position of Sultan in Malay culture of Malaysia that still uphold the tradition of '*Sembah*' within the formal palace function and its importance as a symbol of respect towards the people in Monarchy. While the need of a change to cater the modern audience is one of the important catalysts in Mak Yong's evolution in the city, nevertheless some vital elements that define the identity of Malay traditional performing arts could not be abandoned due to its importance within the hierarchy of society. The position of Sultan in Malaysia as the head of Islamic affairs within the legislation of Malaysian constitution further contribute to the position of *Mengadap Rebab* as an important sequence within Malay traditional performing arts. It is worth noting that while there is no mention of the role of *Yang di-Pertuan Agong* over cultural affairs, the National Cultural Policy in 1971 did state the importance of Islam as the component in moulding the national culture as one of its three principles (Malaysia National Cultural Policy 1971). Moreover, the perception on the position of the invisible beings to that of royal status made the practice within the rural communities adopt its practical spiritual benefit to the community. The take from this dynamic is the connection between the performance and its conventions to the position of values within the performance with the institutional support and audience participation in the economy of this traditional art. The coexistence of values between the modern Mak Yong and folk Mak Yong established the observation towards the connection between the audience and performers in economic scale. Where the city does not find a need to the spiritual Mak Yong – *Main Teri*, the rural Mak Yong found its support in the continuous demand for spiritual healing in Kelantan – Southern Thailand. What we can conclude thus far on the catalyst of change within Mak Yong tradition over the years mainly concerns on several elements, namely the migration of the community, the change of value within the royal patronage institution overlooking the art, the reconstruction of governmental constitution, government policy and international politics. In one-way or another, these changes within the society surrounding the community played a role that not only changed the value but also the economy that would support the livelihood of the traditional Malay artist community. A much recent event for example, in response to the Syariah compliant policy in Kelantan, the form yet again underwent minor change within the ensemble of cast for each role (Siti Rohana 2020). Yet, as Mead predicted, as much as the environment

affects the individual actor or the community, it will inevitably affect its environment as well (Mead 1934: 130). In contemporary time, the performance space is no longer limited to the traditional establishment as noted by Ghulam-Sarwar (1992: 24) but performance space, such as the one in Istana Budaya (Palace of Culture) is made possible through the changes made within the tradition by its community. Therefore, it is within this same spectrum of discussion comes the importance of Joas's creativity of action theory.

The premise of Joas' theory of creativity of action as discussed in the preceding chapter is to include the element of creativity within the theory of action, expanding his argument from his predecessors such as Talcott Parsons and Max. Rather than presenting social action to its cause-effect disposition, Joas also considered the importance of three additional tacit assumptions, which are situationality, corporeality and sociality in his discussion. This brings us into a more focal discussion to understand the emergence of variations within a cultural subject among communities through the lens of creativity in human action. In the discussion of situationality, Joas regarded cognition as separate from human action but plays a vital role in goal setting. Additionally, intentionality of human being which includes intention, motives and values is an internal world that could affect the external world. Due to the volatility of goal setting that considers reflection on the pre-reflective aspirations and tendencies, it is actively engaging and adapting the action according to the corporeality of human action. It also considers habits and ways, which are connected to the environment. Therefore, within the cultural evolution of Mak Yong, the path diverges inevitably and especially for communities that migrated, adopted, or inherited the tradition in Kelantan, Riau and Sumatra. This active reflection within human action catalyze towards the divergence of styles within the tradition especially if the interaction involves different sets of environment and communities. While George Herbert Mead is interested in the construction of the self through mechanism in social behaviourism, Joas expanded the discussion in regards to the dimension of creativity within human action that was not elaborated as much by Mead. He did however place creativity within the discussion of 'I' in the self where it is considered impulsive and unpredicted. Joas' approach added the creative dimension by seeing action as an active human process where it is constantly being supervised and assessed. Change within human action is inevitable if the action fails and this is where the philosophy of pragmatism influenced his stance. Furthermore, pragmatism regards emotion, cognition, perception as phases within human action, not something that precedes or proceeds it. In relation to our subject of interest, Mak Yong has seen its changes due to the need to

sustain the tradition and embracing new generation of audience. We have seen this process over more than 100 years through cases in Southern Thailand, Kampong Temenggung in Kelantan, Khatijah Awang's troupe and recently the revival of Mak Yong as a Syariah compliant performance spearheaded by Rosnan Rahman (Siti Rohana 2020). Therefore, our discussion regarding cultural evolution in the context of creativity in action does not reflect the characteristics of Spencerian Evolution but rather as a necessity within the human action to overcome or to address situations within the efforts of sustaining tradition. This is in line within Joas' argument on goal-setting that takes place after the reflection on the pre-reflective aspirations and tendencies where success is also part of the catalyze in his tacit assumptions of situationality. What this means within our discussion of Mak Yong's cultural evolution is how the impulsive nature of creativity is connected to the aspiration and success. While Mead leaves the 'I' to its impulsive nature, Joas' approach extended the discussion to not merely look at impulsive nature as a causal characteristic. It is the concretization of values and the constructive fulfillment of impulses that further diverged the tradition into different styles to achieve the success that their predecessors had. While success and aspiration acted as observational assessment for the community, the concretization of values and constructive fulfillment of impulses further drove the mechanism forward while it depends on human ability to exercise the power of creativity. Therefore, in discussing the spread of popularity for the non-masked Mak Yong performance in the later half of twentieth century, we have to consider the success it brings for the survival of its community even though the form was not as popular in the first half of the century as denoted by Cuisinier's observation in the 1930s. The introduction of a new variation in Mak Yong performance, the Syariah-compliant Mak Yong is our next observation as a comparison tool for the next pattern within the evolution of this tradition.

The second and third tacit assumptions of Joas' theory is vital to be discussed together in our analysis of Mak Yong's cultural evolution due to its proximity within the anthropological argument used by Joas to elaborate his stand on the creativity element within human social action. We have so far understood how the discontinuation of data occurred throughout different locations in Southeast Asia where different communities and environment could have had its impact in the reactionary response of human action in order to adapt. Adding to the path of high probability in mutation that would further lead to cultural evolution is the positioning of shamanistic spiritual healing element in the tradition within the discussion of corporeality and sociality in Joas' theory. In the



tacit assumption of corporeality, Joas attempted to bring in the anthropological approach on human body within the discussion of social action. His concern was mainly on the question of instrumentalization of human body where discussion on human action should not only consider how humans have the control over their body but also having the ability to relinquish that control as well. In addition, he was also interested in the importance of preconception mechanism that comes before the instrumentalization of the body where it may not be possible to explore should we use the dualism approach towards the conceptualization of body schema in human action. Therefore, the emphasis of creativity in Joas' approach towards human action was also concerned with consciousness and its role within the discussion. In relation to our subject matter, we explored the role of shamanistic spiritual healing and its connection towards the representation of acting in the performance. Secondly, we also looked into the aspect of consciousness, creativity, human action and its relation towards change in Mak Yong tradition.

In his attempt to reconstruct the introduction to tacit assumption, Joas chose non-dualist approach by attempting to include the perspective of anthropology in discussing the human body. His views on the corporeality of human action, which included the ability of human to control and to relinquish that control, can also be understood in the realm of acting in Mak Yong. In our earlier discussion on Mak Yong and the connection to the shamanistic spiritual healing, *Main Puteri*, we have seen the role played by the shaman that will guide his patient in order to invoke the spirit and thus fulfill any desire in order to heal them. This desire or '*Angin*' existed between the conscious and subconscious of his patient because the patient might use his or her five senses to listen to the instruction from the shaman but at the same time the influence by the '*Angin*' can invoke an impulsive response during the performance. The patient is deemed to not be in control of themselves and said to be under the influence of a spirit or *Angin* while they fulfill the desire through various activities that include playing a part in Mak Yong story as well. If we take the activity of acting in a Mak Yong play by the patient, then the representation of that activity can be understood to be within the realm of the control and the relinquish of control of the patient's body. This is because, despite their impulsive nature of trance in the performance, the patient themselves have a certain level of consciousness that certain rules need to be abide where they will play certain characters despite the representation may or may not be what the audience expected in comparison to an experienced traditional actor. Even if we take another example such as a normal Mak Yong performance by the traditional actor, the link to the mystical supernatural

world is strong in this tradition that there could be an intervention by the mystical spirits that would influence the performance of the players whether they are musicians or the actors. The tradition itself has a localized context in assessing the performance whether or not these players were in total control of their performance with the influence from the spirits as the link will always be there, marked by the need to perform *Mengadap Rebab* to keep the harmony between the real and supernatural world. If the player is in total control, then no matter how hard the influence will be, they will continue with the performance until the end. But if they do not have the means to control them, then usually the shamanistic healing will be performed to bring their senses into the real world. Here the indigenous cultural system acknowledges that in the tradition. The players will always have the ability to control and relinquish that control either due to their weak spiritual foundation or by purpose. Therefore due to this impulsive dimension in the performance, we can understand the nature of action by the actors as both having the ability to control or relinquish and at the same time, consciously understand these probabilities during performance. Adding to the nature of Mak Yong's oral tradition, this means that there will inevitably be some information loss as it was passed down from one generation to another. Consequently, due to the nature of impulsiveness in human action, some information could be altered unknowingly and resulted in random mutation of the tradition which leads to the evolution. This brings us to the next discussion within the corporeality and sociality of Joas' theory in our analysis of Mak Yong tradition and discontinuance of data. Joas' discussion on sociality overlaps with our previous discussion through Mead's social behaviourism theory on the formation of the self or the ego. However, what he expanded in the discussion of sociality is the connection with other tacit assumptions which is situationality and corporeality. The position of shamanistic healing within Mak Yong's tradition has now presented us with the connection between consciousness, creativity, human action and cultural evolution. Through the performance of healing ritual, it was shown that human actions both have control and uncontrollable nature. Through the participation of shaman that leads the performance, this further adds the element of sociality within human action. Not only are they conscious in the confinement of the performance convention but their relation to the shaman shows how the relationship between shaman – patient affects their behaviour as they guide them through. The same can be said in Mak Yong's performance convention. Usually, the group performance will follow the lead of the *Pak Yong* who is usually the head of the troupe. Although the performance structure will be the same according to the

tradition, the role played by each player will be performed uniquely. This is the creative dimension within the tacit assumption of sociality as each member may have the tendency to go beyond the boundaries of their self or ego; the patient in *Main Puteri* will play their part impulsively as a patient, while the Mak Yong players expressed their creativity in playing their roles diligently. The same argument was made by Joas through examples given by Durkheim in his observation of the totemic rituals by the Australian aboriginals. Our relation as individuals reflects the connection between conscious, human action and creativity to the community and environment. While the shamanistic spiritual healing in *Main Puteri* has further magnified these relationships, it also helps us in understanding the progress of change and its effect towards Mak Yong tradition in its evolutionary path. During the fieldwork, the informants reported that Mak Yong groups in Riau tried to reincorporate the use of *Rebab* in their musical ensemble after the Mak Yong conference in Thailand, meanwhile Rosnan Rahman recently attempted to make Mak Yong performance available legally in Kelantan. These show that there are attempts by members of the Mak Yong community to go beyond the boundaries of their ego, the Riau group that wants to reintroduce *Rebab* despite having performed Mak Yong without one for a while and the same can be said to Rosnan where Syariah-compliant performance as it stands today was not adhered fully by the groups in Kelantan until his attempt. As Mead pointed out, such attempt is not usually acted out of egoism or selfishness, but due to the individual's concern and responsibility towards the group (Mead 1934: 211 – 212). Therefore, as both agreed by Mead and Joas, analogous to the totemic rituals observed by Durkheim and in shamanistic rituals of *Main Puteri*, the dissolution of self is then required to restabilize the ego which would then propel the individual to go beyond oneself and impulsively contribute towards the creative change or mutation in the tradition, leading to the path of cultural evolution if given the time.

#### **4.7 Conclusion**

The method introduced by Golshani et. al. in using formal analysis managed to break down several micro aspects of Mak Yong's *Mengadap Rebab* and Noh's *Hagoromo Shimai* in terms of spatial and temporal analysis through the use of motion capture and the pre-programmed MATLAB toolkit functions by Berger and Toiviainen. Our initial assumptions was to prove that there is no correlation between *Mengadap Rebab* and *Hagoromo Shimai* based on its historical documents alone. However, despite

majority of the micro aspects of the dance are unique to each dance, there is a similarity observed within the approach of feet movement. Based on the macro analysis, there is also a correlation between the costume, paraphernalia used in the dance and space of performance towards the spatial and temporal aspect of each dance. Within the argument of these correlation, there is a probability of Lamarckian cultural evolutionary process through guided variation in Mak Yong as it focuses on the dramatic movement of the fingers despite not inheriting the tradition of using *Canggih* as part of the dancer's accessories. While we are unable to prove the connection between these two traditional performing arts through choreography, this experiment has proven to be vital for this study as it enlightens us on the connection between costumes or accessories and its impact to choreography. We have also observed that the value with respect to spatial dimension corresponds to the physical space of the performance provided via the construction of stage for each art respectively. Within the values shown in the result, we also found the importance of certain parts of the body as focal features of aesthetic for each art that drove the dramatic performance. This was clearly seen as we made connection between the gestures of *Sembah* and its significance within the Malay aesthetic culture and communication. However, there is a question of variance within the steps of *Mengadap Rebab* given by informants in the fieldwork, signaling random mutation in the tradition that could lead to the path of cultural evolution. Through George Herbert Mead and Hans Joas' approach, we are able to understand the reason behind these catalysts of cultural evolution in Mak Yong. It is a result of the community, interacting with subjects and the environment in a never-ending cycle of active engagement of human action. Adding to the discussion is the element of creativity that each individual possesses. Should they choose to take it to the next step, going beyond the boundaries of the self, then it will potentially propagate the next change within the tradition heading towards the process of cultural evolution.

## **CHAPTER 5**

## *TUTUP PANGGUNG*

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### **CONCLUSIONS AND POSSIBLE FUTURE DIRECTIONS**

#### **5.1 Conclusion**

In our attempt to answer all important inquiries regarding this study, we have addressed several important issues on the discontinuance of data within more than one hundred years of study on Mak Yong. As mentioned earlier in chapter two, to achieve a better focus for our study, we have outlined several objectives for our study, which can be found below:

1. To understand the physical and dramatic movements of Mak Yong's Mengadap Rebab dance through its movement pattern data obtained using motion capture.
2. To interpret the data and connect to their cultural representation from the bodily expression given in the current and previous ethnographic studies.
3. To examine the connection between the use of accessories and costumes in the dance choreography of Mengadap Rebab.
4. To connect all past ethnographic data using motion capture data and cultural evolution theory.
5. To examine the viability of using motion capture in the future studies of traditional performing arts in Malaysia.

Due to the specificity of this study, we cannot elaborate on certain aspects of the study. Still, due to its importance in expanding the knowledge within the discussion of cultural evolution, we will list several recommendations later in this chapter.

At the beginning of this study, we have attempted to explore past studies regarding Mak Yong and the background historical context of Kelantan and neighbouring regions, particularly Pattani, which had a constant political link with the state of Kelantan.

Even at one time, it was under direct influence, starting with the Kelantan dynasty rule in Pattani at the end of the seventeenth century. Our reason behind this is that to understand the cultural evolution of Mak Yong, we have to address the probable cause behind those changes in tradition, particularly in regards to the migration factor. Towards the end of the first chapter, we dive into Mak Yong specifically to understand the basic convention and some of the important concepts behind the art, including the supernatural elements. These supernatural elements constitute the foundation and belief behind many individuals within the communities, as Mak Yong also represents these folk beliefs through its structure, convention and aesthetic. Therefore, to achieve this understanding, we need to understand several important characteristics of subjects related to the human soul, represented by several important definitions within the tradition, such as *semangat*, *angin*, *roh*, or *nyawa*. These concepts are vital within the tradition as the related tradition of the shamanistic healing ritual of Main Puteri also uses them to describe the symptoms of their spiritually-ill patients. Therefore, to connect fieldwork reports and data over one hundred years, we need to consider the contextual settings to help us find common ground they shared.

Chapter two addresses these issues by exploring further the appropriate inquiries that we need to construct to have a focused study. We have begun our intention to discontinue data as the main premise. There are also other research questions that we managed to outline. As we further explore, we understand that a multidisciplinary approach needs to approach our inquiry regarding the subject. Due to the use of ethnography as the main methodology of approach in the study of Mak Yong of the past, we see the gap left by the approach between different periods has left us clueless on the connection between them, particularly on several questions of change within the tradition. Moreover, due to this discontinuance of data, scholars have been unable to fully address the narrative of change within the sociological history of the Mak Yong community. The ethnographic study of the past managed to address the situation or the livelihood of the Mak Yong community in certain eras. Still, more emphasis was done on the art rather than the historical context to help us understand the connection between the community, their environment and Mak Yong aesthetic or conventions. Due to these issues, we have decided to adopt the mixed method while having a philosophical foundation through pragmatism to answer the inquiries and challenges presented. The philosophy of pragmatism has helped us approach the subject by looking at its nature and finding the best possible approaches to answer them. Despite the disadvantages of ethnography to

answer several research questions, they were nevertheless able to provide a certain dimension in enlightening issues within the subject that needed further context. However, in other inquiries, specifically dealing with body movement, motion capture will be the perfect tool to extract information and connect with important contextual studies, both current and past. In addition to these tools as a method to extract information, we also decided to use the cultural evolution approach to address issues regarding the change within the tradition of Mak Yong, particularly several concepts proposed by Darwin and Lamarck in biological evolution. These concepts are useful to discuss the change within the context of culture proposed by Mesoudi due to its convenience.

Nevertheless, as we pointed out earlier and throughout the study, there will be challenges in explaining the nature of change within traditional performing arts if we analyse our subjects fully based on hard data represented by numbers. Therefore to contextualise our analysis and avoid being mistaken in our observational conclusion, we also need to understand the aesthetic knowledge behind the cultural tradition. Malay aesthetic then becomes vital for our assessment. We look into the pattern formation in the body movements and how it connects to the communities and their environment. Due to the contingency of these issues, works done by pragmatist philosophers such as George Herbert Mead and Hans Joas are particularly helpful to address the nature of creativity and its contribution towards the change in human society. Through their pragmatic philosophical approach, we understand that change within social action is inevitable due to the constant interaction between humans and their environment. Therefore, through these theories and approaches by Mead and Joas, we will apply the result from the motion capture and the contextual studies in Mak Yong to look for the mechanism behind the change within its tradition and ultimately address the discontinuance of data. However, to have a more focused study, we need to address the scope and the limitation of data to avoid the unnecessary detour within the discussion on our analysis. Due to the CoVid-19 pandemic, we have readjusted the study to suit the available resources and fit our objectives. After consideration of the best sampling of the current Mak Yong tradition, we have decided to use 'Mengadap Rebab' for analysis due to its current ties to the tradition and its position as a common dance sequence. However, due to our intention of having a focused study, we have decided to use MATLAB pre-programmed analysis tool made by Berger and Toiviainen instead of developing a new analysis tool for our motion capture data. Another important decision for our study is to have another traditional performing arts variable for comparative study to find the close connection between

dance choreography and its environment, including costumes, paraphernalia and performance space. We used the Japanese Noh theatre as it bears no historical connection with Mak Yong in the past and will be a good comparative subject to establish the connection between the environment and its impact on dance choreography.

In chapter three, we have outlined the steps of our data collection. The first phase of this process was the ethnographic data collected in Raman, Southern Thailand. We had approached one Mak Yong communities and interviewed some of them to enrich our understanding of the livelihood of its community members, particularly regarding the Mak Yong tradition. We had also interviewed other Mak Yong community members in Kelantan and other locations. We believe that these interviews could help us understand the perspective of a localised Mak Yong tradition and paint a better picture of what Mak Yong tradition means for different Malay communities in different localities. Perspectives that are important for our study include academicians in higher education institutions and those who received knowledge on Mak Yong from efforts made by Khatijah Awang many decades prior. Other topics discussed with our informants include the training method, knowledge inheritance, pattern of knowledge inheritance among community members, Main Puteri and its connection with Mak Yong tradition. In the second part of the participant-observation phase, we explained the steps to acquire the dance knowledge for Japanese Noh theatre by entering several workshops and personal classes. This step is important to ensure we obtain the background contextual knowledge on the art rather than being speculative during our analysis on the connection between the environment and choreography. The second phase of the data collecting in this study is the motion capture stage, where we recorded Mak Yong's 'Mengadap Rebab' and Noh's 'Hagoromo Shimai'. We first explained the history of motion capture technology and how it can technically help us capture the necessary data for this study. We have chosen Hagoromo Shimai from the Noh play of 'Hagoromo' as it depicts the heavenly maiden who wanted to fly back to her home in the sky. The dance steps reflect her feelings, emotions, and expression of longing. It also aesthetically interacts with the performance space as a symbol of a being entrapped unwillingly by its captor.

In chapter four, we have entered the final stage of our study, which is the result and analysis of findings. Before attempting analysis, we elaborated the path of analysis done by dance scholars in the past. Due to the nature of the data presented, we have chosen to use Golshani et al.'s micro-macro approach to connect the data and its contextual background information. In this chapter, we also introduced and applied the



Cultural Evolution theory spearheaded by Darwin in the past and refined by subsequent scholars. To best represent our data, we have chosen several graphical representations made available by the toolbox, namely the cumulative distance of hand and toe markers, velocity graph and standard deviation graph for x, y and z dimensions. The cumulative distance of hand and toe markers shows how they correspond towards performance space and choreography. Meanwhile, the velocity graphs show the importance of several body parts as the focal aesthetic of the performance. The final representation of data which is the standard deviation of head, hand and toe markers, shows an interesting pattern that shows similarity in the choreography approach of Noh and Mak Yong. Although the vastly different style is shown through the velocity and the cumulative distance, Noh and Mak Yong show similarity in the representation of feet movement in the z dimension, which is the vertical movement.

In the next part, we proceed on getting familiarised with the steps of Mengadap Rebab for a better understanding of its conventions. Particularly, due to its importance as a representation of Malay aesthetic in traditional performing arts, we compared the meaning of the Hindu Anjali Mudhra and the Malay aesthetic of 'sembah'. We also introduced the lyrics and the translation of the 'Mengadap Rebab' song, which depicts a King getting ready to start his day. The importance of the Mengadap Rebab sequence within the body movements context in Malay tradition is not only it is vital as a way to pay respect to the audience but also as a way to keep the balance between the supernatural world and the physical world. In connection with Main Puteri shamanistic healing rituals, the balance between the supernatural and the physical world is very important to lead a healthy life and smoothen any activities, particularly as Mak Yong depicts the god-king characters to entertain the audience. This balance is important not only for the benefit of a performer but also for the audience to avoid any mishaps and unintentional incidents that would harm them and their well-being. In addition, we could also make the connection between the physical space provided in Mak Yong with the one in Noh. While there is one particular room designated for actors to change masks or costumes in Noh, none is observed in Mak Yong. Since Mengadap Rebab also represents not only the main character getting ready, but mentally it is also a preparation process for the actor to embody the role in its entirety for the performance. Therefore, we could connect the absence of a green room or a change room in Mak Yong's stage and the position of Mengadap Rebab as a process of character preparation for the main lead. While Noh represents its character change through a changing room, the same could not be said to

Mak Yong as the main lead will change into the role through the opening dance on the stage in front of the live audience. In the final part of our motion capture analysis, we managed to find the connection between the motion capture data on the choreography with the costume and paraphernalia. Scholars and artists in Mak Yong and Noh had explained in the past the direct and indirect impact of costumes and accessories on the performance, whether it is intentional or unintentional. The example can be seen through the impact of Japanese socks in Noh performance and Mak Yong the use of attire that limits certain movements of the performer.

In the following part of the analysis, we focused on the connection between past data on Mak Yong with our current data. Due to an unknown reason, the Mak Yong community members today cannot make the connection between the masked form recorded one hundred years ago with the current form. The current historical narrative only connects them to the formation of Kampung Temenggung through the patronage of the Kelantan palace. Therefore, using masks or other paraphernalia such as *Canggih*, the fake fingernails seem strange. However, we establish the connection between the current form and the form recorded one hundred years ago through the function of hand accessories used today. While Mak Yong today uses bangles as their hand accessories, previously, the use of *Canggih* adds beauty to the hand movements during dance. Through the velocity graph, we understand that the focal aesthetic in the performance falls on the emphasis of hand movement to give the dramatic effect in the choreography. Therefore, the forms recorded many years ago could have used *Canggih* as an added attraction for this focal aesthetic. This argument is further supported and observed through its successors, the Mak Yong of the Riau Islands. Through the supporting documentation on the migration of Mak Yong communities in the past, there are two levels of channel for cultural diffusion to occur that would later propagate the change within a tradition: micro and macro levels. Micro-level cultural diffusion can be understood in terms of social interaction among Mak Yong communities, while macro-level refers to social interaction between Mak Yong communities and other communities. In 1900, William Walter Skeat recorded several Malay traditional performing arts that shared the same paraphernalia for their art, such as *Changgih*. Through this listing, we understand that there are few overlaps in shared characteristics within the traditional performing art communities. These overlaps represent micro and macro-level cultural diffusions within the traditional performing arts communities of various ethnicities and identities. We can also find these overlaps through our fieldwork with the Mak Yong

community in Raman, where members performed various forms of other traditional performing arts associated with the Malay community and the Thai-Buddhist community such as Menora. The Main Puteri – Mak Yong connection is another micro-level channel where cultural diffusion could occur. The inclusion of non-members into the community through the activity of Main Puteri healing tradition could also mean that there is a possibility where these members have a high chance of bringing their influence from other traditional performing arts into the community. The mechanism of cultural change that we have understood thus far is Lamarckian with guided variation. Lamarckian cultural evolution with guided variation means that cultural changes could occur in a lifetime of a member before passing them down to their successors. The perfect example other than Mak Yong community members in Raman is Khatijah Awang that had managed to change the tradition and introduced Mak Yong to the modern audience in Klang Valley through various organisations and higher institutions.

The final part of the analysis in this study focused on using Mead and Joas' theories for the mechanism behind the socio-cultural change. As a social behaviourist, Mead provides us with the tool to understand the formation of individual behaviour in a community in a concept he called the self. In Mead's perspective, the self is constructed through the community's existence beforehand and provides each individual with the necessary tool to respond to their environment. These responses can also mean the cultural practices or traditions, which can be translated as the 'Me' in every individual. Meanwhile, the 'I', which is the impulsive nature of an individual, cannot be predicted and here lies the creative nature of the self. Therefore it is not necessarily true that the impulsive nature of the 'I' existed due to the nature of individuals going against the community. In contrast, it is due to the overwhelming responsibility to go beyond the boundary of self, seeking the benefit of everyone in the community. Due to the construction of the self through the community's existence, we could understand that the 'Me' that holds a certain custom and tradition in a certain community might be weaker or absent in another. What this means is through the act of migration, Mak Yong can be exported out of the region. At the same time, it can also adopt new local culture due to the absence of 'Me' on Mak Yong culture and the existence of a strong 'I' as a creative force in presenting this new culture in a new environment. In other instances, such as the case of Khatijah Awang, we can also make the same conclusion since communities in Kuala Lumpur or the Klang Valley are not familiar with the culture and tradition of Mak Yong. Therefore where the rural Mak Yong still practices their folk tradition, Mak Yong

in the Klang Valley had adopted a new approach through changes made by Khatijah Awang in her lifetime. However, due to the lack of evidence, we cannot determine the reason behind the demise of Mak Yong that utilise mask and *Canggih* in their performance.

Through one of our informants in Raman, there is a possibility it could be due to the spread of Islam in the palace of Pattani at that time where the practice of folk tradition was forbidden and the artists that practise this tradition were sent away to study Islamic knowledge. This narrative could be why mask and *Canggih* were no longer associated with Malay traditional performing arts such as Mak Yong. Only the Thai-Buddhist community that practices Menora are some of the communities that still inherit the tradition since Skeat reported it. Another observation can also be made towards the change made on essential elements in the tradition with its function. In the cultural change made by Khatijah Awang, she managed to simplify the performance of Mak Yong from its long duration in the folk tradition. However, despite these changes, she retained several essential elements to retain its foundation. The Mengadap Rebab opening dance sequence can be listed as one of these retained elements due to its position as an opening dance representing the core ideals of Malay culture and as an important gesture towards the powerful symbol in the Malay social system; the Sultan. We can understand from this observation that elements subjected to change in a tradition may not find their practical application within the social system due to the change of its social value. The lengthy performance of Mak Yong, for example, is deemed impractical in urban areas where the productivity of modern life are different than in rural areas. The same can be said with the function of mask and *Canggih*, where it no longer serve the purpose due to the change in the Malay value system. This change can be observed through oral narratives and our literary sources where the community were asked to abandon the practice and study Islamic knowledge. Therefore our speculation so far, under the support of the Kelantan palace in the early twentieth century, Mak Yong found its way as a valuable tradition that has its practicality within the Malay folk communities and the elite. It was also able to sustain its relevance in the community through the support from its related healing tradition of Main Puteri.

While Mead helps us understand the construction of an individual's self through community and the interaction with the environment, Joas, helps us understand the creative elements within social action through his three tacit assumptions: situationality, corporeality and sociality. In Joas' tacit assumption of situationality, we understand the

implication of human action as active social progress with its constant interaction between itself, society and the environment in general. Therefore, even when one does not intend to change, inevitably will be subjected to change due to influence from their environment and social interactions. Joas also adds the element of aspiration and tendencies as part of the catalyst towards creative social action within the discussion. We can see this happened through the change made by Khatijah Awang, where she found her calling to improve Mak Yong and successfully spread her influence in the Klang Valley. The final two tacit assumptions proposed by Joas, corporeality and sociality, are discussed together in the case of Mak Yong. In corporeality, Joas argue about the importance of how human perceive their body through body schema. Concerning creativity, what this implies is that humans can control their bodies and have the option to relinquish that control as well. While this is actively in operation, the sociality aspect requires humans to consider others before their next act in social action. In the context of our study, we discussed this approach through the connection of shamanistic healing tradition with acting tradition in Mak Yong and, secondly, the connection between consciousness, creativity, human action and its relation towards change in Mak Yong tradition. Within the context of Main Puteri – Mak Yong, we could observe that the patient both have controlled and uncontrolled dimensions in their action. While they are following the lead and instructions from the shaman, nevertheless, their responses are their own and impulsive. While this can act as an extension to the visibility of the relationship between ‘Me’, ‘I’ and ‘Generalised Other’, it also provides us with the opportunity to observe the path of cultural change. The path of creativity in human action certainly considers the corporeality in action, but it is also connected to one individual's intersubjectivity within the community. Therefore, the cultural changes that occurred in Mak Yong communities are due to the situation presented within the tacit assumption of situationality, corporeality and sociality of humans between individuals before the action progressed into a practised tradition.

## **5.2 Possible Future Directions**

Through evidence from our analysis, we have thus far managed to answer some vital questions regarding the connection between Mak Yong's tradition with objects in its environment to link various data from the past to the most current ones obtained during this study. However, several inquiries need to be expanded to explore the question of

cultural evolution within the Malay traditional performing arts in the Malay Peninsular or within the Southeast Asian region. The possible historical connection and forgotten narrative of the past are revealed in this study through the investigation between choreography and various objects within the dance's tradition. The foundation of pragmatism in our approach of this study has helped us understand the function of community and objects within the environment to construct a clearer historical narrative for a dance tradition. Meanwhile, motion capture technology further provides us with data to establish a clear connection between choreography and human creative response. Therefore, in our attempt to make a comparative study between different traditional performing art forms in the future, it is advisable to establish our approach using motion capture data with support from background contextual data. This approach will help us understand the connection between choreography, contextual information and objects within the performance. Through this study, we understood the effects of responsive action towards objects such as costumes or any paraphernalia through choreography. The type of costume, its weight, material, performance space, withheld objects such as fan, or accessories such as *Canggai*, bangles, necklace, all serve their purpose within the context of performance. As we have discussed earlier on the analysis of human action, even if we are passive towards the existence of an object or the environment, to some degree, it will affect our next action. Within this intention, we should employ motion capture technology as an additional measure to establish the connection between objects and choreography. However, we should also be aware of its capability in recording data as it has its own sets of limitations that we had addressed in the earlier chapter. The employment of motion capture data in the study of cultural evolution or cultural change has its benefit in observing the pattern of big data spanning various forms of traditional performing arts.

To achieve this in the future, we have to establish a big repository of motion capture data for Malay traditional performing arts to observe better the study of cultural diffusion and evolution in the Malay Peninsula. Further expansion is also possible towards any other Southeast Asian traditional performing arts, or any traditional performing arts practised within the boundaries of Southeast Asia. Our study has seen an element in choreography between Noh and Mak Yong. Although no apparent historical connection can be established between them, we could attempt to connect through observation on the relationship between choreography, object and environment. The same observation was also seen in Aristidou et al.'s study, where they found unexpected

similarities in motion capture data for Xin Jiang dance and Egyptian Belly Dance (2019). However, no further discussion was done in the paper. It is then imperative that we also look at a repository of traditional performing arts across East and Southeast Asia or an integrated system that would synchronise the database of dance repositories worldwide. As we investigate the motion capture recording of these dances, we would be able to look at the different approaches in aspects of the choreography, such as foot movements and how it diffuses throughout the geographical location between East Asia, Southeast Asia, and the rest of the world. This possibility is in line with the previous suggestion made by Golshani et al.'s study.

We could speculate for now based on available data that the only possible connection between Noh and Mak Yong, according to its social context in the old maritime trading network of the past, is only through China and Chinese trading activities. There are historical documents that reported the significant population of the Chinese community in the old Pattani and its physical evidence to support this early theory (Reid 2013, 16 and Bougas 1990, 133). We also must consider the interaction between Japan, the old Pattani and Siamese Ayutthaya where it leads to small numbers of migration in the region (Baker & Phongpaichit 2017, 122 – 124, Davies 1961, 70 – 78, Bhawan 2007, 44 - 45). With this significant presence of Chinese and small numbers of the Japanese community, there is a probability that some preference over cultural aesthetic had diffused within the community regardless of social class around Pattani through migration<sup>16</sup>. We saw this possibility in the case of Mak Yong's travelling troupe to Riau and Serdang that establishes its variation in the locality. Using Mead's theory where communities existed before the individual self, there is a slight possibility that the contact between Japanese, Chinese and the Malay in the past could have resulted in the assimilation of cultural values, including performing arts. Future studies to confirm this hypothesis will have to look into a comparative analysis of motion capture data for Siamese dance choreography in Khon and Lakhon, with Chinese opera, specifically those from the Chinese diaspora in Thailand. We could also identify any traditional Chinese dance inherited by the Chinese diaspora in Thailand or focus on those from the Pattani – Kelantan area. The data obtained from this study will help us understand the effects of plurality in the social settings of Pattani towards its performing arts tradition. Using

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<sup>16</sup> There is also a report on the probable origin of some elite social class in Pattani to be of Chinese descent. For more discussion, see Anthony Reid's discussion on Pattani's plurality and Van Neck's report, 2013: 13.

Motion Capture analysis can only provide the opening path of further contextual discussion. Therefore, the need for a big repository to store the motion capture data from East and Southeast Asian traditional performing arts is vital for this endeavour.

Through the micro-macro part of our analysis, we can conclude that the analysis in this study can only be a precursor to more future studies using a big repository for more conclusive evidence. The reliance on big repository data is one of its challenges. Motion capture data could only provide a specific type of observation. Without contextual understanding, it is hard to understand the cross-cultural analysis issue deeply. However, it also provides the probability of observing cultural evolutionary processes provided that the data stored is adequate. The path of observing cultural evolution in dance is intricate. The observers need to understand the contextual background information regarding the subject and observe the micro aspect in the analysis to look at the overall pattern for any possibility of cultural diffusion across communities. Alternatively, we could observe the evolution of dance within the context of diaspora as previously done by Golshani et al. while comparing the observation with other types of dance within the same ethnographic or geographic background. For example, concerning the subject of this study, it will be between the choreography of the five Shite-kata schools in Noh or variations of Mak Yong in Kelantan, Southern Thailand, Serdang and Riau islands. We could attempt a comparative study between performing arts of the same geographic location for cultural evolution observation. For example, by comparing the shared traditions between Mak Yong and Menora, is it comparable to the Mak Yong Kelantan and Riau? How does the culture diffuse, and how does it sustain itself to stick to its sacred traditions? The broad spectrum of discussion from the analysis of performing arts cultural evolution will supplement our understanding of the historiography of performing arts and the process of human cultural evolution in general. Additionally, the study could provide us with the opportunity to synthesise our understanding of traditional theatre and the realm of performing arts as a cultural evolutionary process rather than separate events. While the cultural product is made by each *genius loci* to serve the local aesthetic and social function, we could not avoid discussing the result of human interactions and how it affects cultural production throughout history.

Another recommendation for future studies is constructing a system that would enable us to observe cultural evolution through motion capture, especially through the assistant of analysis programming tools such as MATLAB. As mentioned earlier, our primary intention in this study is more focused on building an approach to discontinuing



data in Mak Yong studies through its one hundred years of data collection across multiple periods of its existence. Nevertheless, the role that the programming made by Berger and Toiviainen proves to be very useful in processing the data obtained from the motion capture recording system. The standard deviation histogram had helped us understand the comparative data between two traditional performing arts choreography in terms of performance space. However, due to the intention of the toolbox might be slightly different than our intention in this study, further improvement is needed to have a better analysis tool in the future for comparative study. Among the improvements that can be made in future studies is to create a toolbox to analyse the frequency of absolute velocity for important markers, distribution of velocity for important markers and relative body movement analysis to determine the movement of a particular marker in reference to another point such as head or hip marker. These are important tools for us to categorise different types of traditional performing arts in different parts of the world. The idea is to look for a particular pattern of movements within different traditions and see how it spreads throughout the country or area of interest.

Indeed, the path in understanding the cultural evolution of traditional performing arts through motion capture in this study has opened up several possibilities of exploration in the future concerning multiple areas of research. Our discussion so far focuses on cultural evolution in traditional performing arts and digital systems to help us analyse data obtained from motion capture. Another important consideration in future discussions will be the philosophical foundation in the meaning of data and its connection to our learning within the framework of cultural evolution. Does human cognition perceive their learned knowledge in digital representation given through motion capture? Can the cultural mutation of learned choreography be understood through motion capture data? If it is true, how random is the process of mutation in choreography data through human error? These are some of the important questions that should be considered to understand the random mutation within the cultural evolution. Through Mead's social behaviourism theory, we have understood that these are some of the impulsive and random expressions of the 'I' within the self. Meanwhile, Joas had pointed out several tacit assumptions that influence the creative expression of human cognitive response. However, through data representation in motion capture, how can it help us understand the pattern of information, its mutation, and its connection to various objects within the environment? The path to understanding these philosophical views on human perception

towards information and knowledge could open further discussions on the study of human creativity within the digital humanities research area.

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## **Appendix**

Programming algorithm for ‘Mcfillgaps’ and ‘Mcsmoothen’ function in MoCap Toolbox by Berger and Toiviainen:

### ***Algorithm for Mcfillgaps***

```
d2=[];

if nargin==1
    maxfill=1000000;
    method='';
end

if nargin==2
    if strcmp(maxfill, 'fillall') % mcfillgaps(d, 'fillall'); - BB
20100503/20100917
```

```

        maxfill=1000000;
        method='fillall';
        elseif strcmp(maxfill,'nobefill') % mcfillgaps(d, 'string'); if no
fill of beginning and end - BB 20100917
        maxfill=1000000;
        method='nobefill';
        elseif sum(isletter(maxfill))
        s1='Sorry, do not understand ";
        s2="". Please check your spelling.';
        disp([10, strcat(s1,maxfill,s2), 10]);
        disp([10, 'No gap fill performed.', 10]);
        [y,fs] = audioread('mcsound.wav');
        sound(y,fs);
        return
    else method='';
    end
end

if nargin==3 %BB 20100917
    if ~xor(strcmp(method,'fillall')==0,
strcmp(method,'nobefill')==0) %BB fix 20111014
        s1='Sorry, do not understand ";
        s2="". Please check your spelling.';
        disp([10, strcat(s1,method,s2), 10]);
        disp([10, 'No gap fill performed.', 10]);
        [y,fs] = audioread('mcsound.wav');
        sound(y,fs);
        return
    end
end

if isfield(d,'type') && (strcmp(d.type, 'MoCap data') ||
strcmp(d.type, 'norm data'))
    d2 = d;
    d2.data = fill(d.data, maxfill, method);
elseif isfield(d,'type') && strcmp(d.type, 'segm data')
    d2 = d;
    d2.roottrans = fill(d.roottrans, maxfill, method);
    d2.rootrot.az = fill(d.rootrot.az, maxfill, method);
    d2.rootrot.el = fill(d.rootrot.el, maxfill, method);
    for k=1:length(d.segm)
        if ~isempty(d.segm(k).eucl) d2.segm(k).eucl =
fill(d.segm(k).eucl, maxfill, method); end
        if ~isempty(d.segm(k).angle) d2.segm(k).angle =
fill(d.segm(k).angle, maxfill, method); end
        if ~isempty(d.segm(k).quat) d2.segm(k).quat =
fill(d.segm(k).quat, maxfill, method); end
    end
else
    disp([10, 'This function works only with MoCap, norm, and segm
structures.', 10]);
    [y,fs] = audioread('mcsound.wav');
    sound(y,fs);
end

return

%%%%%%%%%%
function dd2 = fill(dd, maxfill, method)

```

```

dd2=zeros(size(dd));

for k=1:size(dd,2)
    nani = isnan(dd(:,k)) | dd(:,k)==0; % logicals for gap frames
    dnani = diff(nani);
    ind1 = find(1-nani);

    gapstart = find(dnani==1);
    gapend = find(dnani==-1);
    if ~isempty(gapstart)
        if isempty(gapend) gapend=length(dd(:,k)); end
        if gapstart(1)>gapend(1) gapstart=[1; gapstart]; end
        if gapstart(end)>gapend(end) gapend=[gapend; length(dd(:,k))];
    end

    gaplength = gapend-gapstart;
    notfilled = zeros(length(dd(:,k)),1);
    if ~isempty(gapstart)
        for m=1:length(gapstart)
            if gaplength(m)>maxfill
                notfilled(gapstart(m):gapend(m)) = 1;
            end
        end
    end

    ind2 = min(ind1):max(ind1); % interpolation range

%     dd2(ind2,k) = interp1(ind1, dd(ind1,k), ind2,'cubic');
%     dd2(ind2,k) = interp1(ind1, dd(ind1,k),
ind2, 'PCHIP'); %recommended by Matlab #BB_20150302
    dd2(find(notfilled),k) = NaN;
else
    dd2(:,k)=dd(:,k);
end

    if ~isempty(method) %if EITHER 'fillall' OR 'nobefill' is set
        if dd2(1,k)==0 || ~isfinite(dd2(1,k))%check if there is need
to fill in the beginning
            if sum(isnan(dd(:,k)))==size(dd,1)%FIXBB110103: if marker
is empty
                %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% FIX NEEDED
HERE %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
                elseif isempty(gapend) %THIS GETS CONFUSING HERE! IT
SHOULD PROBABLY BE TESTED IN THE UPPER_LEVEL IF-CONDITION - SEEMS THAT
SEGM DATA WANTS THAT; BUT DONT GET WHY
                    elseif strcmp(method,'fillall')
                        ge=gapend(1);%get end (frame no) of first gap
                        ged=dd2(ge+1,k);%get data of first recorded frame
                        dd2(1:ge,k)=repmat(ged,ge,1);
                    elseif strcmp(method,'nobefill')
                        ge=gapend(1);%get end (frame no) of first gap
                        dd2(1:ge,k)=repmat(NaN,ge,1);
                    end
                end
            if dd2(end,k)==0 || ~isfinite(dd2(end,k))
                if sum(isnan(dd(:,k)))==size(dd,1)%FIXBB110103: if marker
is empty
                    elseif isempty(gapstart) %THIS GETS CONFUSING HERE! IT
SHOULD PROBABLY BE TESTED IN THE UPPER_LEVEL IF-CONDITION
                    elseif strcmp(method,'fillall')

```



```

                                gs=gapstart(length(gapstart));%get start (frame no) of
last gap
                                gsd=dd2(gs-1,k);%get data of start of last gap
                                dd2(gs:end,k)=repmat(gsd,length(gs:length(dd2)),1);
elseif strcmp(method,'nobefill')
                                gs=gapstart(length(gapstart));%get start (frame no) of
last gap
                                dd2(gs:end,k)=repmat(NaN,length(gs:length(dd2)),1);
                                end
                                end
                                end
end
return

```

### ***Algorithm for Mcsmoothen***

```

d2=[];

if nargin==1
    order=2;
    cutoff=.2;
    s='';
end

if nargin==2
    if strcmp(f, 'acc')
        s = f;
        f = 7;
    end
end

```

```

elseif isscalar(f)
    s = 'acc';
elseif isvector(f) && ~ischar(f)
    if f(1) ~= floor(f(1));
        disp([10, 'The order parameter must be an integer.', 10]);
        [y,fs] = audioread('mcsound.wav');
        sound(y,fs);
        return
    end
    if f(2)>=1 || f(2)<=0
        disp([10, 'The cutoff frequency must be within the
interval of (0,1).', 10]);
        [y,fs] = audioread('mcsound.wav');
        sound(y,fs);
        return
    end
    order=f(1);
    cutoff=f(2);
    s='';
else
    disp([10, 'Inconsistent input arguments.', 10]);
    [y,fs] = audioread('mcsound.wav');
    sound(y,fs);
    return
end
end

d2=d;

if strcmp(s, 'acc') %accurate, Savitzky-Golay version
    d2 = mctimeder(d, 0, f, 'acc');

else %fast Butterworth version
    if isfield(d,'type') && (strcmp(d.type, 'MoCap data') ||
strcmp(d.type, 'norm data'))
        d2.data = butter_1(d.data, order, cutoff);

        elseif isfield(d,'type') && strcmp(d.type, 'segm data')
            d2.roottrans = butter_1(d.roottrans, order, cutoff);
            d2.rootrot.az = butter_1(d.rootrot.az, order, cutoff);
            d2.rootrot.el = butter_1(d.rootrot.el, order, cutoff);
            for k=1:length(d.segm)
                if ~isempty(d.segm(k).eucl) d2.segm(k).eucl =
butter_1(d.segm(k).eucl, order, cutoff); end
                if ~isempty(d.segm(k).angle) d2.segm(k).angle =
butter_1(d.segm(k).angle, order, cutoff); end
                if ~isempty(d.segm(k).quat) d2.segm(k).quat =
butter_1(d.segm(k).quat, order, cutoff); end
            end
        else
            disp([10, 'The first input argument has to be a variable with
MoCap, norm, or segm data structure.', 10]);
            [y,fs] = audioread('mcsound.wav');
            sound(y,fs);
        end
    end
end
return

```

```

function dat2=butter_1(d, order, cutoff)

d_filt=[];

d_mc=mcinitstruct('MoCap data', d, 100);
[mf mm mgrid]=mcmissing(d_mc);
if sum(mf)>0 %missing frames need to be filled for the filtering!
    d_mc=mcfillgaps(d_mc);
    d=d_mc.data;
end

[b a]=butter(order, cutoff); %filtering

for k=1:size(d,2)
    dat=filtfilt(b,a,d(:,k));
    d_filt=[d_filt, dat];
end

if sum(mf)>0 %missing frames set back to NaN
    tmp=1:d_mc.nMarkers;
    tmp=[tmp;tmp;tmp];
    tmp=reshape(tmp,1,[]);
    mgrid=[mgrid(:,tmp)];
    d_filt(mgrid==1)=NaN;
end

dat2=d_filt;

```