

# The Designing and Development of Gendang Kecapi as Bamboo-Based Musical Instruments on Eco-Tourism Activities

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**Abstract.** This paper was developed to reveal the finding of studies related to musical heritage of Malay-based bamboo. The study was conducted in several districts in the state of Kelantan such as Tanah Merah, Pasir Puteh and Pasir Mas. The data was obtained via a series of interview with a bamboo traditional musician. The finding shows that there are several types of bamboo-based musical instruments that are almost extinct in Kelantan. Among the musical instruments are the gendang kecapi, the serunai, Kertok Buluh, the instrument music can duplicate voice kijang, burung wak-wak, rusa, burung sitar, napoh or kancil and ayam hutan. All of these musical instruments are almost extinct and are no longer recognized by a new generation. From this study, the findings also show that the development of bamboo-based musical instruments has high potential to stimulate the growth of eco-tourism activities in Malaysia. In this regard, this paper will explore and reveal the findings of this study so that bamboo-based musical instrument will be known to all future generations. It's also can be used as one of the most exciting eco-tourism activities through organizing workshop to making bamboo-based musical instruments.

## INTRODUCTION

In this modern age, many musical instruments have been created based on modern and futuristic concepts. As a result, more and more traditional musical instruments have been forgotten and some have become extinct and are only on display in museums. This has a huge impact on society. Today, people are increasingly forgetting musical instruments that used to be a tradition and a symbol of national heritage. This to some extent has caused this hereditary heritage to become extinct over time.

In the old traditional musical instruments can be easily found on the Malay villages. However, as a result of technological developments, changes in the times and local cultural changes have made it quite difficult to find. Among the increasingly forgotten and almost extinct musical instruments

are gendang kecap. Pok Loh, one of the gendang kecap figures, also expressed his concern in this matter.

Gendang kecap is one of the traditional musical instruments that was once very popular among the older generation but has been forgotten by the younger generation now. Gendang kecap was once popular in its heyday around the 1940s and 1950s where the generation at that time still appreciated traditional musical instruments.

Gendang kecap is indeed one of the inventions of the ancient society that has proven to have its uniqueness compared to other traditional musical instruments. The advantage of this musical instrument is that it has a variety of sounds that can be produced through bamboo. Among the sounds of musical instruments produced are the sounds of gong ibu, gong anak, gendang ibu, gendang anak, canang ibu and canang anak. In the context of traditional musical instruments indeed have only one sound representing one instrument, for example a gong musical instrument has only one pitch issued.

The making of this gendang kecap is no longer carried out in the state of Kelantan except for one individual who still appreciates this traditional musical instrument, namely En. Abdullah Majid with age 83 years old well known as Pok Loh. He is still active in the art of making gendang kecap and is very good at playing the traditional musical instrument even though he is old. He is the only maker of this traditional musical instrument that still exists in the state of Kelantan. He started dabbling in this musical instrument since he was 17 years old.

As a result of the study, gendang kecap has five versions, namely gendang kecap from Pasir Putih district inherited by Mr. Abdullah Majid, Pasir Emas district inherited by Pok Hussin Gelang Emas, Kota Baharu district inherited by Mr. Mohammad Abdullah, Rantau Panjang district was inherited by En. Setapa and gendang kecap innovation produced by En. Mohd Aswawi Isa (2019).

## **PROBLEM STATEMENT**

Traditional musical instruments at one time had a very significant role as a symbol of unity, civilization, culture and identity of the community. However, as a result of technological developments, the changing times that demand to change the lifestyle of society has caused the traditional music that once so took place in the hearts of teenagers and youth, has now been forgotten by the younger generation today. E. M. Logunova (2012) claim in current scenario, the basic of new aesthetic tasks facing with contemporary art and art education were need a solution.

The changing of lifestyles presently, make people in hectic environment is a one of the main factors that people almost forget about traditional music. The development of modern music is also a major factor why the current generation forgets traditional music. In fact, most modern music is seen to have a tone of voice that is considered more interesting and easy to learn compared to traditional music, is the reason why traditional music is no longer popular and almost forgotten by the present generation. Further more, in education sectors also, music subject being a second class subject. M. V. Pereverzeva, M. L. Kats, V. A. Ovsyannikova, S. S. Aksenova and N. S. Yushchenko (2020) stated that in current situation, musical education often lags behind general education. At present, musical education often lags behind general education. Musical education is usually received in the system of additional and vocational education.

Music Museum Director, Rohana Husin (2019), states that the history of musical instruments that have started since the prehistoric era shows how it relates to various aspects in human life including in the belief system and social structure of society. The creation of traditional musical instruments today is much inspired from the beliefs of animism practiced by society in that era, while before its creation sound was simply produced through voice, foot and wood strikes as well as applause and wooden strikes. Then blowing instruments such as flutes were produce by using natural materials such as bamboo, and even animal skins were also used as part of the medium of making musical instruments used to enliven the worship ceremony before the using of metal (Rohana Husin, 2017).

As a result of the extinction of traditional music because this is seen as Malay identity is also increasingly shaky. Malay community is almost no strong identity and seems to be seen as there has never been any development of civilization in the Malay community itself. Actually, the establishment and consolidation of the power of the Malay race itself is derived from a variety of activities and events, people and customs rooted in the traditional music instruments. Folk cultures such as dikir barat, wayang kulit, tarian zapin, main puteri, etc. are set by various types of musical instruments that produce quite engrossing sounds. But now almost all of these musical instruments are no longer popular in society. This phenomenon is a very large impact on the Malay race as a

whole. Malay race seen as weak and does not have its own cultural identity. The development of local culture is shrinking and it is seen as being colonized and dominated by other cultures such as yellow culture from the west and pop culture from Korea. In fact, taking into consideration the traditional music of other nations wither like China, India and Iban more lifted and become more influential compared with traditional Malay music instrument itself.

Therefore, it is felt that the problem associated with the studies of traditional music is being conducted to identify the types of equipment music that is almost extinct in the Malay community. Through this study, because the music will be maintained and preserved properly so that it can be used as a reference to all the community and future generations. Documents such as this will become evident due to the development of music in the Malay civilization.

## LITERATURE REVIEW

Among the most notable instruments of the museum's curation is a magnificent harp built by renowned harp maker Sébastien Erard (Lee, 2008 & Elaina V. Hutton, 2019). The French musician and master craftsman played a significant role in the development of the harp as a modern instrument in the eighteenth century. However, in Malaysia the innovation of design to making harp by using bamboo is a very uniqueness invention. The hybrid music instrument by integrate between function of drum and harps produce a unique pitch of music. Gendang means the surface of the bamboo that is beaten and produces a sound that sounds like the sound of a leather-based musical instrument such as a gendang dua muka, gedombak, kompong and rebana. While the kecapi is a rope that is dug out of bamboo-sized skin and makes the sound of instruments like the sound of metal-based instruments such as gongs and canang.

Gendang kecapi is a combination of musical instruments derived from leather (membranofone) and metal (ideofone) applied by imitating the sound on a bamboo expanse to accompany performances such as silat, wayang kulit, menora, tomoi, tarian and dikir barat. Kecapi is the only musical instrument that has a variety of sounds to mimic other musical instruments such as gongs, gendang and canang. This unusual hybrid instrument is a fairly modern musical contribution, dating back to the early 1700s (Tim Brookes, 2007)

However, the uniqueness of this musical instrument is that it has its own differences according to a particular place. Kecapi is also influenced by the local cultural conditions where the maker will create this musical instrument based on the function and needs according to the type of performance that will be held.

The elements of instruments and functions will be designed on a bamboo floor to meet the number of musical instruments to accompany a performance. Usually each district has a difference in terms of the shape and appearance of its soybean drum.

### 1. Elements of Pasir Puteh District Gendang Kecapi Musical Instruments

The technique of making gendang kecapi in the Pasir Puteh district has its own uniqueness compared to other districts in the state of Kelantan. This may be due to local cultural factors that greatly influence the design and function of this tool. With the presence of martial arts and martial arts around Pasir Puteh where Kampung Jeram is famous for being a prominent figure of the state of Kelantan, namely Tok Janggut Warrior. It was found that the function of gendang kecapi was influenced by local cultural factors to accompany the martial arts and tomoi performances.



Figure 1. Pasir Puteh district kecapi musical instrument



As a result of this study, it was found that the 83-year-old gendang kecap drummer, Mr. Abdullah bin Majid, asserted that many of the music rhythms played were based on the rhythm of martial arts and the rhythm of tomoi music. While the sound concept played by the kecap Pasir Puteh is just the sound of gendang and gongs.

## 2. The Concept of Bamboo Gendang Kecapi Silat Beats by District

Gendang silat kecap beats also have a different concept of gendang beats. Here are some reviews of the differences in the beating of bamboo silat gendang kecap for several districts in Kelantan.



Figure 2. Gendang Kecapi from Pasir Putih Regional

### 2.1 Gendang Kecapi Playing Techniques in Pasir Puteh

The technique of playing kecap in the Pasir Puteh district is that the musician will sit cross-legged by placing the right thigh at the end of kecap. With this method, the musical instrument can avoid moving to the back when the front of the gendang is hit.

How to play this gendang kecap is using the thumb to pick the bamboo slice as the sound of gongs, ghost fingers as the gendang anak as "ting", while the left palm as the mother's drum as "cap". In other words, the gendang kecap in the Pasir Putih district has three sounds produced, namely "cap", "ting" and "gong". Usually musicians wear rings on ghost fingers to help produce a sound that sounds like a child's drum.

While the function of the right hand is to plucked blade on the harp strings as it serves as a gong. Usually the mother's gong represents the strings on the back of the kecap body, while the strings on the front represent the child's gong.

The function of the drum, on the other hand, involves the front of the bamboo cavity which is inserted into betel nut which is measured the same size as the surface of the bamboo cavity. The bamboo cavity placed on the betel nut represents the mother's millet according to the two-faced drum on the face made of cowhide which serves as a "cap". Old betel nut will be taken for use on this tool. The middle part or upih bone is a very suitable part to use as this part is resistant to fractures.

While the bamboo body part serves as the mother drum on the goat skin which represents the sound of "ting" according to the real two-faced drum.

In conclusion, the gendang kecap in the Pasir Putih district has three main sound elements, namely cap, ting and gong ibu in imitating the sound of real Kelantan traditional musical instruments such as the sound of two-faced drums and the sound of Gong or tetawak.

### 3. Designing and Development of Gendang Kecapi

The making of the gendang kecap is bamboo-based and is traditionally made. The selection of mature, large and thick bamboo material is one of the main features emphasized in the selection of bamboo to make the gendang kecap. Here is how to make a gendang kecap.

The techniques to making gendang kecap as shown below:

3.1 Get a suitable bamboo. The bamboo should be concrete bamboo and the best bamboo is old bamboo.



**Figure 1.** Suitable sizes for gendang kecap bamboo

3.2 Make sure the size of the bamboo is large because large bamboo can produce a better sound than small bamboo.

3.3 Measure and cut the bamboo at each end of the segment and the cut is preferably 4 inches long.



**Figure 2.** Bamboo cutting

3.4 Then, sharpen the surface of the cut bamboo using a sharp knife. The part is scraped for the purpose of smoothing the surface of the bamboo.



**Figure 3.** Cutting segments on bamboo

3.5 There are two holes that need to be drilled in the middle of the bamboo.

3.6 To get the center point of the first hole, you need to measure the length of the segment at the top to the bottom. Then the length is divided into two to get the middle of the bamboo. Mark the middle using a marker pen.



**Figure 4.** Measure the length of the bamboo between the segments



**Figure 5.** Getting the center point on the bamboo

3.7 To get the second midpoint, you need to measure the length of the bamboo diameter and then divide it into two. Then take the measure and place it on the center point of the first hole. You will get a second hole place.



**Figure 6.** Marking the midpoint between the two segments

3.8 Punch parts of the holes with a width of one inch and a length of one and a half inches using a chisel, hammer and knife.



**Figure 7.** Drilling a hole in the marked place

3.9 After the holes are ready to be drilled, wipe the holes with sandpaper then wash the bamboo and dry the bamboo in a shady place.



**Figure 8.** Wash holes drilled using sandpaper

3.10 After the bamboo is dry, measure the thickness of the bamboo you want to dig. The ideal thickness to be dug is between 0.6-1.0 cm while the length starts one inch and a half after the lower segment up to one and a half inches before the upper segment.



**Figure 9.** Measure the part that needs to be dug to make a bamboo rope

3.11 Dig the top and bottom of the hole drilled earlier with a knife to make a rope.



**Figure 10.** Dig a little part of the bamboo to make a bamboo rope

3.12 Then repeat the 10th method by making another rope from the bamboo surface where the distance of the rope is 2.4 cm above the rope made earlier. Do the same for the next hole.

3.13 Equate the thickness of the ropes using a knife. This is also to remove excess rope thickness and also straighten the ropes.



**Figure 11.** Equate the bamboo rope so that it is not too thick

3.14 After finishing the ropes, smooth the bamboo surface with sandpaper. This is to remove the nine on the ropes.





**Figure 12.** Smooth the bamboo rope using sandpaper

3.15 Punch a hole in the lower segment one inch from the segment then insert the end of the rattan and wrap it until the rattan circumference exceeds one inch from the outer segment. Then punch a hole in the bamboo and insert the end of the rattan into the hole.

3.16 Punch a hole in the bottom of the first section. The distance between the hole and the first segment was one inch. Then punch a second hole in the top of the first segment at the same distance of one inch from the segment.

3.17 Insert the rattan and wrap it until the rattan reaches the next hole.

3.18 Repeat the 14th method but by punching in the upper section. The distance of the hole until the segment remains the same that is one inch long.

3.19 Excess bamboo is used to make a stopper on the bamboo rope.



**Figure 13.** Excess bamboo is cut to make a stopper

3.20 Insert the stopper between the rope and the surface at the top and bottom of the bamboo. The place of the free stopper is changed to get a nice string passage sound.



**Figure 14.** Insert the stopper on the bamboo rope to find a better sound

3.21 Next, the excess bamboo is cut to make a place to close the hole in the middle of the bamboo. The hole cover is hung using a rope that is at the top and bottom of the bamboo hole. This cover is also used as a picker to remove sound from inside the bamboo.

3.22 Cut a piece of bamboo a little as deep as one and a half inches from the top of the bamboo.



**Figure 15.** Cutting the end of the bamboo to place the upih

3.23 Measure upih according to the size of the top of the bamboo then cut upih according to the size of the bamboo. Make sure there is an excess of one and a half inches on the upih to insert the end of the upih into the bamboo slit that was cut earlier.



**Figure 16.** Measure the area of the upih to insert a small part of the upih into the bamboo

3.24 After inserting the upih, bend the end of the upih so that the surface of the upih can be patted according to the size of the bamboo hole.



**Figure 17.** Inserting upih that has been composed into bamboo

3.25 The upih is cut according to the size of the bamboo surface using a knife.



**Figure 18.** Remove excess on upih

3.26 Once completed, gendang kecap is inserted to maintain physical endurance and also the appearance of the instrument.

## **RESULTS AND DISCUSSION**

Gendang kecap has many functions in every nation and culture in Malaysia. An example of the function of a gendang kecap is to accompany the music. In kecap music, it is divided into two, namely the kecap indung and kecap rincik. Kecap indung is used to lead the music by providing intro, bridges and interludes. Gendang Kecap instruments are widely used in silat, wayang kulit, dikir barat, main puteri (main teri), makyong and also muay Thai.

The privilege of playing the gendang kecap can provide peace and heal the soul because of its beautiful melody and rhythm that is so classic and traditional. The function of the gendang kecap can also be associated with 'art therapy'. Art therapy can focus on the process of making creative art itself, as a therapy, or on the analysis of acquired expressions. The principles of art therapy involve humanity, creativity, coordinating emotional conflict, fostering self-awareness and self-growth. The gendang kecap is said to give art therapy to anyone who plays it where it helps to express happy emotions. There are 6 beats that are always played, among them are:

1. Wayang Kulit
2. Dikir Barat
3. Silat
4. Tomoy/Muay Thai
5. Main Puteri (Main Teri)
6. Mak Yong

## **CONCLUSION AND FUTURE WORK**

Based on the observations on the workshop, we can conclude that most people in Kelantan still do not know the existence of this bamboo gendang kecap. This is very critical because there are only a handful of people who can play and make this bamboo gendang kecap. Furthermore, most of them are elderly and can no longer play and produce bamboo gendang kecap.

This bamboo gendang kecap can not only fill free time but also a source of income for the previous community. Apart from that, bamboo gendang kecap is one of the traditional musical instruments originating in Kelantan which is increasingly forgotten by most communities in Malaysia. In addition, there are still a handful of people in Kelantan who fight for and introduce musical instruments to the world. One of them is Abdullah Bin Majid who has fought for and introduced this musical instrument by performing in the United States. Apart from that, he is also very happy to give guidance to anyone who is interested in learning to make and play this musical instrument. Yet with the influence of western culture most teenagers are no longer interested in learning and recognizing these traditional musical instruments. Therefore, we must fight for our culture so that it does not become extinct.

Apart from that, this workshop can also teach and explain the elements, techniques and methods of making bamboo gendang kecap instruments to all present. This is very important because this matter is based on the objectives that have been set. In my observation, everyone who attended this workshop came without knowing what a bamboo gendang kecap is. However, thanks to the blessings and hard work of the teaching staff at the workshop, the audience was able to learn and increase their knowledge about the traditional musical instruments available in Malaysia, especially the bamboo gendang kecap which are becoming extinct in the past.

Finally, all parties must play a role so that our cultural heritage is not lost in time. In addition, with a workshop like this, the next generation can inherit and learn the heritage that has been left by the previous generation. Last word from me we must fight for our culture and heritage all over the world so that this matter can be known by the whole world. Other than that, we must avoid the next generation from not inheriting western culture that does not symbolize our culture.

## **Discussion and Suggestion**

In my opinion, to prevent these traditional musical instruments from becoming extinct with time, the government must play their role by declaring these traditional musical instruments as a cultural heritage in Malaysia. This is because this can prevent traditional musical instruments from disappearing from the public view. Apart from that, the government must also hold a bamboo gendang kecap workshop. With this, this tool can be introduced again to the community in our country. Furthermore, this can attract foreign tourists to learn about the culture in Malaysia.

In addition, the responsible parties can also record and document hardcopy how to produce this tool so that it can be learned by future generations. It is my great hope that this musical instrument will not be swallowed up by time because this instrument is a culture or heritage passed down from previous generations to us. Therefore, we must take care of this instrument so that it can be seen and inherited to the next generation, thus efforts to attract back the interest of the younger generation to the art of kecap. It will also provide exposure of kecap that it could be considered material for games or entertainment by the Malays at that time.

Finally, the responsible party must promote this bamboo gendang kecap so that this matter can be known by the whole world. Furthermore, this thing can also further popularize bamboo gendang kecap among the people around the world. Furthermore, this matter can also qualify bamboo gendang kecap as a national heritage in UNESCO.

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