Abstract. Based on the existing conditions, it is known that the root of the problem in the field of Malay batik product design in the form of Batik Motif Design Development through the Transformation of the Mahligai Stupa of Muara Takus Temple in Kampar Regency, is due to a lack of human resources who have the potential to be creative and innovative in creating batik motif designs by transforming the Stupa Mahligai Muara Takus Temple in Kampar Regency. So that this condition resulted in the quality of community resources to be low. To improve the quality of community resources in Kampar Regency, efforts have been made to develop regionally distinctive batik motif designs. The goal to be achieved in the development of this batik motif design is the preservation of Malay culture in the transformation of cultural objects as a typical batik motif design for the Kampar Regency area. The type of this research is Batik Motif Design Development Research developed using four-D models. Data collection was carried out by validating and testing the developed product. The design will be designed, validated by experts, to determine the practicality and effectiveness of the motif designs developed. Batik motif designs were produced through the transformation of the Mahligai Stupa of Muara Takus Temple in Kampar Regency as a valid effort to preserve local culture. Based on the pre-test conducted in the batik motif design process, it is known that its implementation is in the very practical category. The response from the local community is urgently needed in the transformation of the batik motif design of the Mahligai Stupa of Muara Takus Temple into a batik motif design in Kampar Regency which is developed into positive results. Pre-observation results showed good results. In addition, this research also produced two training products in the form of 1) Batik Motif Design Development Book, 2) batik products in the form of batik cloth.

Keywords: Design of Batik Motifs, Transformation of the Mahligai Stupa of Muara Takus Temple, Batik in Kampar Regency.

INTRODUCTION

Every ethnic group in the world lives by establishing, carrying out and developing customs, traditions and habits according to their needs. These customs and traditions are part of the culture they create, which in turn become the distinctive property of the ethnic group. Because culture is a human creation, culture is not something that lasts forever. As time goes by, humans acquire new discoveries and ideas, where these new discoveries and thoughts make their needs change. Changing human needs make the culture they create will always change. A stagnant culture, which does not want or cannot keep up with the changing
needs of its supporting community, will eventually be abandoned by the next generation. As a result of this culture will slowly be forgotten and die.

Shape changes in composition can originate from geometric shapes and basic forms generated by the human mind, (Barliana, 2008), transformation of forms of change and development is characterized by planned changes, following patterns or even forms and structures.

According to Dwista (2014) Transformation utilizes philosophical concepts only as a manifestation of the scale of form, proportion and aesthetics alone so that the concepts of form, proportion and aesthetics often decorate universal forms. The form of transformation occurs when adjustments to proportions and aesthetics that have been adjusted or innovations are creations new. Transformation can be done on elements or visual form elements of points, lines, or planes and the basic coloring needed according to what will be used as objects, the shape is moved. According to Asefi (2012) in Reynanda, Saladin, & Typhoon (2020), transformation mechanisms, sculpture and art feature movable components and defined identities, demonstrating that transformation is not only a method of expanding a building’s space from indoor to outdoor which occurs through complex structural transformations.

The question that then arises is: if adat is required to always change in order to remain in line with the needs of the times, then what is the meaning of ‘maintaining’ and ‘preserving’ it? Which ones may or must change, which ones must be preserved?

Regardless of the ideology adopted by a group of people, regardless of the level of culture they create, whether they are primitive societies or modern societies, there are always universal truth values that will last forever. These values are preserved, guarded against extinction.

The Malay community, especially the Riau Malay community, like other communities in this archipelago, are very rich in cultural treasures. Among these cultural assets is the cultural object of Muara Takus Temple which is located in Kampar Regency which is the oldest cultural site in Sumatra.

Kampar Regency is an area full of tradition and historical elements that has not been explored much, one of which is batik products with various patterns (motifs) and yeast (designs) along with their philosophical values which are very meaningful for humanity. According to Hikmat Ishak, a Riau humanist, the culture of batik already existed in the Muara Takus Kingdom, which is now part of the Riau Kampar Regency, in the 4th century AD. According to this Riau cultural expert, evidence that batik existed in the 4th century can be seen from several reliefs found around the Muara Takus baths.

In the 'reliefs' (or fragments of statues and inscriptions of mantras, vajra sculptures, gold leaf scrolls with carved surfaces carved with flowers and mantras) and pottery fragments, pictures or paintings with batik motifs were found which are still maintained by batik from Muara Takus Kampar. . "Until now, there are still batik artisans from Muara Takus who make batik with patterns such as those in the reliefs and pieces of pottery found in the temple area. This batik is named Muara Takus Batik."

From the description above, the author carried out the Development of Batik Motif Designs through the Transformation of the Mahligai Stupa of Muara Takus Temple in Kampar Regency, which can be applied to a batik motif design called the MAHLIGAI motif. In order for the design of this batik motif to be understood, it is necessary to have a development guide book. This book is made in such a way that the Development of Batik Motif Designs through the Transformation of the Mahligai Stupa of the Muara Takus Temple in Kampar Regency is structured and can be used properly, so that it is easy to understand.

METHOD

This type of research is research and development (Research and Development). Development research is research that is designed in a structured and systematic way, to develop a product and produce the product through certain stages and evaluations to test the validity, practicality, and effectiveness of using it.

One of the steps of development research is to produce a model of the problems encountered in the field, and to test the newly designed or modified model. This research procedure follows the model steps that are designed and adapted to the needs. The research model design can be carried out in unlimited places, as long as the research is capable of conducting research. For research problems, it refers to questions that can contribute to existing knowledge and experience bases.

This research begins with questions that arise from the difference between ideal conditions and reality in the field. The question of these differences requires researchers what is ideally a problem, as well as finding solutions to these problems through research. The questions refer to knowledge that comes from expert opinion or research that has been done before.
In this study the model was applied to facilitate solving problems that occur in the community and galleries so that they can be used practically. Development research is the implementation of problem solving, which refers to needs and knowledge with research objects, in addition to theoretical and practical knowledge.

The research development model is a set of sequential procedures for designing and developing which is manifested in graphic or narrative form. The development model used in this research is the 4-D development model (four D models). According to (Trianto, Developing Thematic Learning Models, 2012) the stages of the 4-D model include: define, design, develop, and disseminate.

The development model selected in each study has advantages that can be used as a basis and reference in the selection of models that are carried out. The advantages possessed by 4-D include: (1) it is more appropriate to use as a basis for development, (2) the description looks more complete and systematic, (3) in its development it involves the assessment of experts, so that prior to conducting trials in the field revisions have been made based on results of assessments, suggestions, and input from experts.

The resulting development after being validated by experts and practitioners will be tested limited. At the time of the trial, implementation and usability will be observed. Development of the transformation of the mahligai stupa structure into batik motif designs and batik products

RESULTS AND DISCUSSION

Result

The batik motif designs developed were accompanied by a batik motif design development book. This book is divided into three parts namely; The first part, contains the Introduction, about the contents of the book. (1) Purpose of developing batik motif designs, (2) Expected results (3) Benefits of batik motif designs, (4) Development Implementation. about the process of developing batik motif designs. (2), results of batik motifs, (3) Application of batik motifs into fabrics and batik products. The third part is about closing.

1. Purpose of Batik Motif Design Development

The goals to be achieved in the Development of Batik Motif Designs through the Transformation of the Mahligai Stupa of Muara Takus Temple in Kampar Regency are to add to the repertoire of batik motifs, especially in Kampar Regency and to increase creativity in developing batik motif designs by combining Riau Malay motifs, carving motifs of Lountiok traditional houses in Kampar Regency and products from agriculture and plantations around the area that are a source of inspiration in developing cultural products into batik designs and are transformed using the theory of adaptation and stylization of objects that change motifs. So that the design of batik motifs can be developed as batik products for the identity of the local community.

2. Expected results

With the development of batik motif designs through the transformation of the mahligai stupa of the Muara Takus temple in Kampar Regency, the following things can be expected.

a. Society can know the history of batik and the development of batik. 

b. The community and batik business actors are able to develop batik motif designs through the transformation of the stupa of the mahligai of the Muara Takus temple and agricultural products into batik product designs that create local identity.

c. Business actors remain productive with batik. By always developing batik motif designs in the region, especially Kampar Regency.

d. The community is able to preserve culture through batik for children and the next generation.

3. Benefits of Batik Motif Design Development

The benefit of developing this batik motif design is a bridge to apply ideas and imagination in the form of batik motif designs that can be applied in complete batik products. The bridge for the application of ideas and imagination is guided by clear and precise steps, so that it is very easy to realize batik motif designs after studying the Mahligai Batik Motif Design Development Book.

4. Implementation of Batik Motif Design Development

Implementation of Mahligai Batik Motif Design Development can be developed in the form of products such as batik cloth, work and school batik clothes in the form of shirts, t-shirts, and clothes brackets. It can also be developed for craft products such as souvenirs, bags, table mats, curtains and so on.
Discussion

Design Development Process for Mahligai Batik Motifs: Mahligai Stupa of Muara Takus Temple

Mahligai Temple is a temple stupa and is currently in the most intact condition among the others. The Mahligai Stupa has three parts, namely the roof, body and legs. This temple is rectangular in shape with a width of 10.44 meters and a length of 10.6 meters. As for the height of about 14 meters. Mahligai Temple is shaped like a tower similar to a yoni. Previously, on each side of the corner of the temple there was a statue of a seated lion made of andesite stone. At the top of the tower there is a stone carved with reliefs, one of which is an oval-shaped leaf painting. Mahligai Temple is estimated to be built in two stages with the final stage adding the foot of the temple.

The Mahligai Stupa has three parts, namely the roof/head, body and legs. From these three parts it was developed into a batik motif design, namely:

1. The roof or head of the temple

The basic pattern of the Roof or Stupa Head motif combines several motifs adapted from Riau Malay motifs and distillations from animal and fauna motifs which were developed into variations of batik motifs:

a) Bamboo Shoots

b) Selembayung
Figure 4. The basic pattern design for the Selembayung motif  
(Roni Sarwani, 2022)

Selembayung, which is also called Sulo Bayung or Horns of Discard, is a decoration that is located crosswise at both ends of the roof and lollipop roofs. At the bottom sometimes also given an additional decoration such as a drawn spear, connecting the two ends of the comb. These ornaments are called spears Selambayung means the God’s Ladder as a symbol of the descending place of the gods, mambang, akuan, soko, sacred, and the side that brings salvation to humans.

Selambayung balai belian
Tangga Dewa nama asahnya
Tempat berpijak Deo Mambang
Tempat turun soko Akuan
Tempat ijakan Keramat Sidi
Tempat melenggang Wali-wali

Yang turun Dibalai puncak
Yang turun Diblik Dalam
Yang Turun Dibumi selebar Dulang
Yang turun dari langin sekembang payung

c) Lotus flower

Figure 5. The basic pattern design of the Lotus Flower Motif  
(Roni Sarwani, 2022)

The lotus flower symbolizes love and life where this flower is often found as decoration at religious events. The scientific name of this flower is Nymphaea which is Ancient Greek, namely Nymfa which means water, springs or wells. In the world of flora today, the lotus flower is widely interpreted as a contemporary flower that has purity and purity of soul. For Buddhism and Hinduism, the lotus symbolizes awakening, this is because this flower closes at night and opens again in the morning. The beautiful blooming flower that emerges from the dark and dirty mud is believed by Buddhists to be a symbol of enlightenment.

d) Cloud

Figure 6. The basic pattern design for the Awa Wave Motif  
(Roni Sarwani, 2022)

“(Motif) Cloud waves, can be interpreted to mean holding back our anger, so we are told to be patient, calm, cool, like when it's cloudy, it's cool.” According to Buddhist Beliefs Human life is sometimes dim, dark for a moment like the sun covered by clouds, or night the day the moon is not bright is covered by dark clouds, everything is temporary, after the clouds leave it will be bright again, so life is not always in the dark or lacking. All of these conditions of dualism can be used as stepping stones as a means of support for people who want to learn and understand life, that all things are impermanent, we only borrow the false causes of this temporary mate to find the true, eternal.

e) Lion

Figure 7. The basic pattern design for the lion's head motif  
(Roni Sarwani, 2022)
Depictions of lions are often found in Hindu and Buddhist sacred buildings. Starting from the temple to the temple, there are depictions of lions in the form of paintings, reliefs or in the form of statues or statues. One of the depictions of lions that we can see today is the depiction of lions in the Mahligai Stupa of Muara Takus Temple. We can see the depiction of the lion in the relief of the Mahligai Stupa. This description is not without reason because in Buddhist teachings the lion is indeed a sacred animal. According to Buddhist belief, the lion is the vehicle of the Buddha to nirvana. The lion is a symbol of the Buddha, namely Siddhartha Gautama. He was known as the “Lion of the Sakya family” because the lion is the king of the beasts which symbolizes strength, courage.

f) Kite Wings

Figure 8. The basic pattern design for the Kite Wings Motif (Roni Sarwani, 2022)

This decoration is found on the four eaves of the roof. The shape is almost the same as the sembayung. Every building with a veil must use a kite’s wing as its equivalent.

g) Bees Depending on Setaman Buds

Figure 9. The basic pattern design of the bee motif depends on the Setaman buds (Roni Sarwani, 2022)

The decoration that is located under the eaves of the roof (lisplang) and sometimes at the bottom of the steps is called Hanging Bees or Waves. This decoration symbolizes the sweetness of domestic life, self-sacrifice and selflessness. This symbol rests on a beehive motif hanging from a wooden branch.

2) Temple Body

Figure 10. The basic pattern design for the transformation of the temple body (Roni Sarwani, 2022)

The basic method of the Badan Stupa motif combines several motifs adapted and stylized from Riau Malay house carving motifs which were developed into variations of batik motifs:

a) Kaluk Paku

Figure 11. The basic pattern design for the Kaluk Paku Motif (Roni Sarwani, 2022)

This motif is found on the window sills, in pairs of wooden carvings of filigree arches of domes with a motif of nails. Carved ferns are usually placed in longitudinal planes, such as on wall footboards, doorways, doorways, wall trim, pillars, and ventilation trim. Included in this group are all forms of leaves and roots.

The Kaluk fern carving symbolizes life which eventually returns to God Almighty, the God of all Nature. The spiral-shaped circles at the end of each carving reflect circles in various levels of "nature" namely the world, the hereafter and Yaumil Mahsyar's final realm (Heaven or Hell).
b) Lontiok Traditional House

Figure 12. The basic pattern design for the Lontiok Traditional House Motif (Roni Sarwani, 2022)

Rumah lontiok (lentik) is a traditional house of the people of Kampar Regency, Riau Province, which in 2017 was included in the list of national level Intangible Cultural Heritage in terms of arts, customs and culture. The lontiok house is also known as the sassy or pencak house.

The distinctive shape of the lontiok house is the roof which forms an upward curve or is slightly tapered and pointed. The wall looks a bit like an exit, the foot of the wall is in the shape of a sassy or boat. Using a wooden stick that is high enough, exceeding the height of an adult. To go up to the top of the house using an odd number of wooden stairs, usually 5 steps which are symbols of the 5 pillars of Islam. The curved shape of the roof of the house is believed to be a form of human respect for God and others.

Currently, the existence of the lontiok house is one of the tourist attractions in Kampar. The famous area to visit as a lontiok house tour is Belimbing Island Hamlet, Sipungguk Village, Kampar. The number of lontiok houses is now decreasing along with the development of modern architecture. The house which is used as a place for the Ocu tribe's customary meeting should continue to be preserved as one of the intangible cultural heritages of Riau Province.

c) Kaluk Fern Diamond

Figure 13. The basic pattern design for the Diamond Fern Kaluk Motif Variation (Roni Sarwani, 2022)

The Kaluk Perfect Diamond motif has a philosophical meaning, namely symbolizing the nature of God who is the most gracious in order to receive love and mercy from Him. The Single Leaf Motif, Arrow Eyes, Tabir Bintang has a meaning, namely it contains a philosophical value of nobility and gentleness. The Single Elbow motif is a philosophy that reflects the attitude and personality of the Malay people.

d) Kaluk Fern Variation

Figure 14. The basic pattern design for the Kaluk Pakis Variation (Roni Sarwani, 2022)

Door leaves in Malay houses are in the form of panels and ram-ram (jalusi), or half panels and half ram-ram. The material is made of selected wood such as surian, punak, and tembensu. The entrance to the house must lead to a public road. Doors can consist of one or two doors. The door is locked using a door latch or a barrier (latch from the inside). Door split is a piece of broti that is placed on both jenangs or door frames. Above the door, most of the beautiful cuts are made, showing the high dignity of the owner of the house.

3) Temple feet
The basic method of the Stupa Foot motif combines several motifs adapted and stylized from the traditional lontiok house carving motifs and Riau Malay motifs which were developed into variations of batik motifs:

**a) Fern cauliflower**

*Figure 16. The basic pattern design for the Kaluk Pakis Variation*
*Roni Sarwani, 2022*

Kaluk Fern carvings are usually placed in an elongated area, such as on the footboards on the walls, doors, thresholds, wainscoting, pillars, ventilation trim.

**b) Ducks flock**

*Figure 17. Design of the basic pattern of the Sekawan Duck Variation*
*Roni Sarwani, 2022*

Also known as the Evening Duck, it has the basic shape of the letter 'S' which is continuous. The S can be made upright or italic. In the middle is given a variation in the form of leaves, and so on. The letter 'S' that looks like a duck.

**c) Gando Ari decoration**

*Figure 18. The basic pattern of the Gando Ari variation*
*Roni Sarwani, 2022*

The Gando Ari ornament is a decoration along the foot of the front and back walls of Lontik's house. This decoration symbolizes the attitude of life of the Malay people which is in harmony with the sea of human life and the natural surroundings as well as a symbol of prosperity and fertility.

**d) Laret Cloud**

*Figure 19. The Basic Pattern of Cloud Carving Variations*
*Roni Sarwani, 2022*

Carved Shapes The clouds are loose, but the basic pattern is limp and curved lines. Usually green, blue, red, yellow, white. Its placement is in an elongated, faceted or round field, so it is not related to a particular part.

The laret cloud carving symbolizes gentleness in association and can be placed anywhere, and can enter anywhere. This carving did not affect the roar where it was placed, but adapted itself to the place where it was.

**e) Violin Trellis**
Variations of decorative trellises can be found on trellis or veranda trellis, window trellis, or as decoration on the lisplang. The decorative variety of the violin trellis has nothing, it only functions as a porch or window fence.

**f) Picak Stairs**

Picak stairs are flat steps made of thick planks. If the steps pass through the stair pillar, then it is called a becepam stair sculpture. The head of the stair post is always given a carving called a kumaian, as well as the side of the stair post. In several areas in Riau it is called the waves or bees depend but with different variations.

3) **Motive Stylization Variations**

   **a) Paku Sampang**

A variation of the nail motif, the nail has an indentation at the tip of the young nail leaf so that the indentation forms a circle. The circle has the meaning of the rotation of human life, sometimes above, sometimes below, sometimes happy and sometimes sad, the old love the young, the young respect the old. That is death," he said. Meanwhile, ferns or common people call them ferns can grow everywhere, in forests, coastal areas, rocks and even dry land. Likewise human life must be able to survive wherever they are. The conclusion of the meaning of the nail motif is about human life

   **b) Clove Leaves**

Cloves can be used as a spice either in its whole form or as a powder. This spice is used in Europe and Asia. In Indonesia, cloves are mainly used as an ingredient in kretek cigarettes. Cloves are also used as an ingredient in incense in the People's Republic of China and Japan. Clove oil is used in aromatherapy and
also to treat toothache. Finely ground clove leaves can be used as a vegetable pesticide and is effective for controlling Fusarium stem rot disease by giving 50-100 grams of dried clove leaves per plant.

c) *Palm fronds*

![Figure 23. Basic Pattern Design of Palm Frond Variations (Roni Sarwani, 2022)](image)

As one of the largest palm oil producing regions in Riau, Kampar Regency participates in contributing to the area of oil palm plantations in Riau with an area of 276 thousand hectares, with a total of 22 Palm Oil Mills but with the area of oil palm plantations in Kampar it has not been able to provide a balanced PAD contribution to areas and there are still many problems between the community and various parties and companies.

d) *Clove Flower*

![Figure 24. Basic Pattern Design for Clove Flower Variations (Roni Sarwani, 2022)](image)

The parts of the plant that can be used for the purposes above are flowers, flower stalks and clove leaves. The use of cloves was then developed in the cosmetic industry and recently there have been several findings showing the possibility of developing the use of cloves for other purposes, including as an anesthetic agent for fish and eradicating pests and plant diseases.

e) *Fern*

![Figure 24. Basic Pattern Design for Clove Flower Variations (Roni Sarwani, 2022)](image)

Plants on our earth are very diverse. Nail plants are one of the many species. In Indonesia, the pilgrimage or suplir fern plant is very popular. The plant is a type of ferns. This type of fern plant is not just to enliven the ecosystem, it also has its own benefits. There are many important things to know about this type of plant.

f) *Rice plants*

![Figure 25. Basic Pattern Design of Rice Stem Variations (Roni Sarwani, 2022)](image)

Kampar Regency officially has a new brand of rice, namely Ulu Kasok, after the inauguration was carried out by the Acting Regent of Kampar Kamsol at the same time as the signing of the collaboration with the Mainstay Farmers and Fishermen Contact (KTNA) of Riau Province and Kodim 0313/KPR in Binuang Village, Bangkinang District.
This effort was carried out by the Kampar Regency government in order to revive the agricultural sector towards food self-sufficiency. Kamsol explained that the purpose of implementing the planting method through IPAT BO was to increase rice production, at least a 100 percent increase. "If you can plant 1 hectare of rice, you only get 3 tons, then it can increase to 6 tons, or usually only 1 harvest, then 2 harvests."

g) Caladium Leaves

![Caladium Leaves Image]

Figure 27. Basic Pattern Design of Variation of Calamari Leaves
(Roni Sarwani, 2022)

I think everyone understands this proverb. It means more or less people who don't have a stand are easily swayed when someone else influences them.

This cannot be separated. Like the presence of water in taro leaves, water will collect on the leaves without causing the leaves to get wet, then what if the leaves are gutted, the water will go here and there without a clear direction.

5) The results of the transformation of the modification of the Mahligai batik motif design.

![Batik Motif Design Image]

Figure 28. Mahligai Batik Motif Design (Roni Sarwani, 2022)

From the description and description of the design of the batik motifs above, the development of batik motif designs through the transformation of the Mahligai Stupa of Muara Takus Temple and varied with Riau Malay motifs, carvings of Lontik Houses and taken from agricultural and plantation products in Kampar Regency. The development that was carried out with adaptation and stylization techniques became a combination of motif variations so that it became the development of a batik motif design called the Mahligai batik motif, Kampar Regency, Riau Province.

6) The Mahligai batik motif design application becomes a batik shirt

![Batik Shirt Image]

Figure 30. Product Design of Mahligai Batik Motifs on Batik Shirts
(Roni Sarwani, 2022)
CONCLUSIONS AND SUGGESTIONS

The results of the Development of Batik Motif Designs from observations on the Development of Batik Motif Designs through the Transformation of the Mahligai Stupa of Muara Takus Temple in Kampar Regency which are named the Mahligai Batik Motif Designs.

The Mahligai Batik Motif Design application of red color is a combination of the transformation of the stupa of the Mahligai Muara Takus Temple, carvings, agriculture and plantations which are modified in such a way as to maintain the characteristics of the local culture of Kampar Regency in this case as the main object taken from the transformation of the Mahligai Stupa of Muara Takus Temple and given a touch of supporting objects taken from variations in traditional Lontiok house carvings in Kampar Regency, variations in plants and plantations in the Kampar Regency area by transforming the variations and merging them into a complete batik motif design called the Mahligai Batik Motif Design.

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