

## Research Article

# From Threads to the Pictures: Initiating the Majalaya Weaving History in Character Design for Children's Picture Book

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## Abstract.

The Majalaya weaving, which is made manually by non-machine weaving tools / *Alat Tenun Bukan Mesin (ATBM)*, became a record of history, culture, art and technology which is embodied through motifs and colors. In the early 1920s, the Majalaya weaving industry was pioneered by three women from Majalaya. However, due to various factors, from interviews that have been conducted with community leaders in Majalaya, as well as observations in the field, there are apparently not yet a media being available that can capture the history of women pioneers and the history of Majalaya weaving and transfer this knowledge to children. Thus, this research is aimed at creating a suitable medium that can preserve the memory of women pioneers and the history of Majalaya weaving. Using a participatory approach carried out by searching the historical data, as well as interviews with community leaders who are also descendants of the pioneers, this research develops several visual storytelling potentials initiated by character design for children's picture books.

**Keywords:** character design, Majalaya weaving, children's picture book, visual storytelling

## 1. Introduction

Based on history notes from Keppy [1], Majalaya weaving had a golden age in the year of 1920s. Based on these posts, milestones history textiles in Majalaya started by four women with textile industry family background that followed the course at *Textiel Inrichting Bandung (TIB)*/ Bandung Institute of Textile and then become the founder of Majalaya weaving industry. The four women are, namely Emas Maryam, Enda Suhaenda, Oya Rohaya, and Cici [2]. Majalaya weaving become the preservation of history, culture, art, and technology through patterns and colors. Since *ATBM (Alat Tenun Bukan Mesin)* or Non Weaving Cloth Machine being found, Majalaya able to control 40 percent of national textile business needs. At least 1 million meters of cloth ordered to

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**Published:** 10 January 2025

**Publishing services provided by Knowledge E**

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Selection and Peer-review under the responsibility of the BCM 2023: Technology and Art Conference Committee.



craftsman of Majalaya weaving. Over time, the woven motifs were still perpetuated by technological advances, with the production of factory machines.

However, with the change in terms of production from *ATBM* to production using factory machines, this has gradually affected the textile industry in Majalaya. The developing *makloon* system led to the process of assimilation of decorative ornaments from other regions, thus further drowning the local motifs that had existed in Majalaya [3]. Apart from that, in the 1990s, capitalism also contributed to the decline in the prestige of this woven fabric. [4]. In addition to the decline in prestige, Majalaya weaving also faces several technical obstacles that are interrelated to one another, from the less development in the aspect of motifs and their use in present-day Majalaya society, to the awareness of these weavings to the young Majalaya generation, especially between elementary school children. In fact, through these school children, knowledge about history can be conveyed.

Therefore, the research team realized how important it is that Majalaya weaving is preserved in an educational medium that is implemented in the form of visual storytelling, which is a link between historical and cultural potential and its targets—in this case, the elementary school children. This visual storytelling can be in the form of children's picture book. This children's picture book was made based on references from historical archives such as written articles about the women founders of the Majalaya Weaving industry which have been published in the past, as well as depictions from literature archives about Sundanese women and their daily habits, and, as well as photographs and data kept by the predecessors. With the existence of a children's picture book that was initiated by the first step in a form of character design, it is hoped that it will become a joint effort to perpetuate the history of Majalaya weaving, especially among elementary school children.

## 2. Methods and Equipment

### 2.1. Methods

The research method used is intended to collect the data needed in the research, in the context of this paper is the design of characters for children's story books with the topic of preserving Majalaya Weaving through an introduction to history. The data needed can be in the form of qualitative data and quantitative data. In contrast to quantitative data, qualitative data is used for further analysis. This qualitative data will then be used

to obtain historical narratives that will be used as part of the recommendations for what is needed in designing visual storytelling for children. This study uses a multimodal ethnography approach whose presence is a response to changes in the media, from the historical archives to the visual storytelling media, which is the object of study in this field. More specifically, multimodal ethnography itself is part of qualitative research, as well as an extension of the visual and sensory ethnography method [5]. In this study, researchers were involved in various event settings to record sensory captures as part of the data. This method involved researchers, school children as users, related stakeholders such as community leaders who are descendants of the founders of weaving in Majalaya, and based on existing activities at the research site, namely in Majalaya. With this participatory design process and multimodal ethnography, it is hoped that participants from various backgrounds, perspectives and roles can become part of the design process to ensure a variety of perspectives and ideas.

### 2.1.1. Data Collection Method

In the process of designing this character, the team used a qualitative method as a direction which would later be translated into a recommendation. At this stage, various information is collected so that conclusions can be drawn.

#### 1. Observation

Observation is a method used to observe something, someone, an environment, or a situation in sharp detail, and record it accurately in several ways [6]. Observations, observations and recording were carried out on elementary school children aged 9 to 12 years who were elementary school students in Majalaya. Because, the writer needs to know what visuals are most suitable for these children. Observational and recording data can support the writer in further research and will be used as a design plan to be made.

#### 2. Documentation

Not only looking for book data and the internet, the author also looks for information through material modules, guidebooks and videos. The forms of data examined are not only from primary data sources, but also secondary data such as images, videos, articles and so on. The author also performs documentation related to design and layout, such as concepts, design illustrations, interactivity, and forms to be included in the design of

visual storytelling media. With the collection of documentation, the author can compare the various elements and contents of learning aids, visuals and delivery of the material.

### 3. Interview

With interviews, we are dealing directly with the desired data source. Conducting interviews allows the writer to obtain information that can be used as learning material, ideas and images to build the concepts of the material, into the concept of interaction in making children's comic books. The writing team conducted interviews with community leaders in Majalaya, one of whom was Mrs. Wulandari as a researcher from Majalaya and who is the next generation of the weaving industry in Majalaya, and Fanny Santoso as an illustrator for children's comic books.

### 4. Questionnaire

Questionnaire is a means of gathering information from a population, by asking them questions. The questionnaire distributed will be used to hear the opinion of a more general or target audience. Respondents, namely elementary school students in Majalaya, will go through various questions and answer several things regarding designs and illustrations that are suitable for display in the comic book.

### 5. Simulation

At this stage, drawing activities will be carried out for children aged 9-12 years, they will describe something requested and choose the pictures given and from these results they will understand how they see, understand, and process visuals, as well as to find an illustration style that will be adopted for design.

### 6. Literature Studies

The literature study used, among other things, is related to picture book theory for children, as well as child psychology theory to determine visuals that are appropriate to the child's age development. In addition, the writing team also conducted a literature study in the context of textiles and their history, particularly on Majalaya weaving.

## 3. Results

In the context of designing characters for fictional stories based on historical archives, accurate references are needed, and can record the habits and lifelines of the characters in that era. Appropriate references are needed, because they form the basis of character and story building which are more relatable to readers.

### 3.1. Historical Review of Women Founders of Majalaya Weaving

The Majalaya sarong history is connected with the weaving tradition in the past in the 1920s by women using a loom called *kentreung* [3]. The women sit on the terrace of their house and weave the cloth, which are materials obtained from the surrounding area and done manually.

In 1928, there were four girls who took courses in weaving with a new tool, *Alat Tenun Bukan Mesin* (ATBM), in *Textiel Inrichting Bandung* (TIB)/*Institut Tekstil Bandung* and afterwards built the Majalaya Weaving sarong factory industry [2]. The four women are part of a family with a background in the textile industry and are also in the upper class society, so they have access to education. The four women were Emas Maryam, Enda Suhaenda, Oya Rohaya, and Cicih, but unfortunately only Cicih did not open a weaving factory and reportedly died at a young age.

Based on journal from Petrus Johannes Keppy entitled “Hidden business: Indigenous and ethnic Chinese entrepreneur in the Majalaya textile industry, West Java, 1928-1971” [1], these women come from a family of prominent textile entrepreneurs in Majalaya. Nyi Emas Maryam was born in Majalaya in 1913, the daughter of Haji Toyibin, a landlord and textile entrepreneur from Pekalongan and still part of the Cirebon royal family, who owns a batik business in Majalaya with her brother who sells yarn. Emas Maryam helped her mother and aunt sell side cloth from house to house in Majalaya. Meanwhile, Enda Suhaenda is the daughter of Sintadireja, a textile entrepreneur and brother-in-law of Haji Abdoelgani. Haji Abdoelgani himself is a rice seller and textile entrepreneur, father of Oya Rohaya. After these women graduated from TIB, these women got married and set up weaving factories. Emas Maryam built the “Pusaka” weaving factory with her husband, a textile entrepreneur, Ondjo Argadinata, Enda Suhaenda founded the “Roswida” “Lugina” weaving factory with her husband, a spinning expert, Rudjai Natami-hardja, and Oya Rohaya built the “Tugu” weaving factory which changed its name to with her husband, a businessman, named Entang Jamaga.

### 3.2. Literature Depiction of Sundanese Women and Weaving Culture

In Kawih Pangeyeukan [7], containing songs and poems that were recited in weaving activities at that time, knowledge and sacred treatment of looms was one of the conditions that had to be fulfilled by women, which was believed at that time, to be



**Figure 1:** (from left to right: Nyi Oya Rohaya , Nyi Gold Maryam, and Nyi Enda Suhaenda.  
Source: (Majalaya.id, 2021).

a condition for a capable, skilled, and noble woman who was coveted by her husband, as written in the text:

*Terampil tanpa harus diajari.  
Pandai meubeur malam-malam.  
Pandai menyongket di saat gelap.  
Memintal benang kuning dan merah.  
Memintal benang jingga dan merah muda.  
Merah tua dan putih bagai bunga gadung.  
Cera warna kainnya, pekat warna nilanya.  
Pantas dijadikan sebagai tangan kanan.  
Sehingga melekat di dalam hati.  
Sehingga masuk ke dalam empedu.  
Sehingga berdian di dalam paru-paru.  
Berdiri di puncak kegemilangan.*

(English translation:

Skilled without having to be taught.  
Good at weaving at night.  
Good at weaving in the dark.  
Spinning yellow and red yarn.  
Spinning orange and pink yarn.  
Dark red and white like an ivory flower.  
The color of the cloth is bright, the color is deep indigo.

(The woman who do it) deserves to be your confidante.

So, it become your beloved.

So that it merges deeply inherently.

So that it becomes the part of you.

Standing at the pinnacle of glory.)

For the Sundanese people, weaving was one of the skills that women had to learn at that time. Because of its sacredness, the weaving process is work that cannot be done in any place or time. Weaving tools are usually placed on a platform or hall. In the palace environment, usually the weaving place was called *Bale Sipangeuyeukan* and not just anyone, especially men, was allowed to enter. Even in Oktaviani's writing [3], women weave a lot during the off season such as after planting and harvesting, done after all the housework has been done. Weaving is considered a mandatory skill for women, especially if one wants to be considered a good partner to marry.

Sundanese women at that time also had recommendations for how to look, as in one of the verses from the same Kawih [7] reads ; “ *Mulah dimangka rambisak, kana pinareup laligar. Rambut panjang ta gelungan, mulah dimangka ngarunday.*” Which can be interpreted that if women's hair is long, must be kept in braid and styled neatly. Apart from that, in the next stanza it is also explained that women must wear clothes that cover their bodies, wearing cloth tied with a belt. From one of these references about daily habits and appearance, the creator was able to adapt how the character appearance to describe Sundanese women and the habits they carried out at that time.

This verse capture from the same Kawih is also reinforced by a statement from an interview conducted with Ibu Wulandari, a descendant of Oya Marliyah, one of the founders of Majalaya weaving. The appearance of women in Majalaya in the past always wore a kebaya and wore their hair in a braid or bun, owned and used a lot of jewelry that was customed to the kebaya they used, mostly when they were old they would wear a scarf on their heads, and having the ability to weave was mandatory so that they could be considered a good women with virtue to marry.

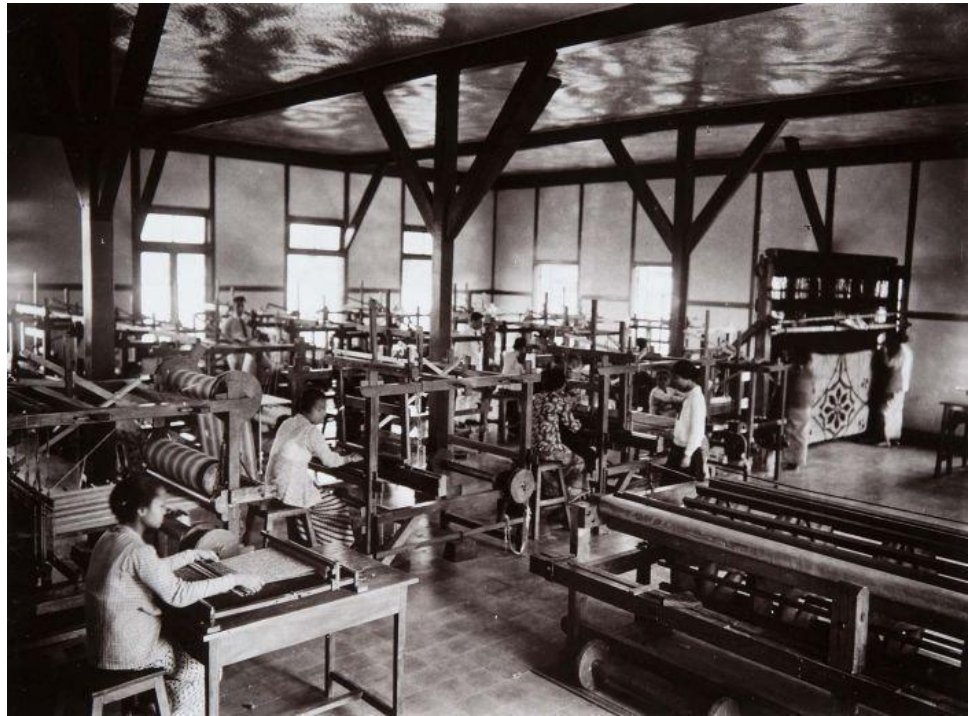
### 3.3. Visual Archive about Majalaya Weaving Industry and *ATBM*

The progress of the Majalaya weaving industry was inseparable from the establishment of TIB (*Textiel Inrichting Bandoeng*) in Bandung, 1922 by the Dutch East Indies government. TIB was established to foster the textile industry and prepare experts in the textile sector as well as develop weaving techniques and equipment. Human resources from various cities are prepared with various training provisions. Based on an article written by Kusumo [8], in 1927, a new loom was demonstrated and believed to be able to work more effectively and efficiently. Women artisans are said to play an important role in the spread of this new weaving technique, some of them are Nyi Emas, Enda Suhaenda, and Rohaya, who are credited with spreading this new weaving technique throughout Majalaya [1]. Meanwhile, in 1929, a large-scale weaving industry was built in Majalaya, this factory had 30 looms. In the following years, TIB continued to produce thousands of looms that spread to areas outside the city. In its development, these factories grew rapidly so as to spread the textile industry and business in Majalaya plus in 1937 electricity entered Majalaya and companies were able to update more sophisticated tools, causing Majalaya to be called the *Kota Dolar* or City of Dollars due to success in the textile sector. However, during the transition from the President Soekarno's reign to the New Order until the Monetary Crisis in 1998, raw materials were difficult to obtain due to rising prices, causing Majalaya textile companies to borrow money due to debt but still not enough and had to sell assets to pay off debts but not many companies survived [4]. Nowadays, in order to maintain this woven company, entrepreneurs are finally starting to think about producing Majalaya sarongs that are modified, such as in the material, or in the motifs, so that the original motifs of the Majalaya sarongs are no longer visible.

### 3.4. Character Design for Picture Book for Children

In the context of child-friendly visual design, it can adapt the way children see and respond to their world that is different from adults. And from this way it can be seen what types of visuals are interesting to them, because this understanding is related to how children grow and develop, how far the maturity of the senses, images, nerves, and ways of thinking children at a certain age, one of which is shown through the way the child draws [9].





**Figure 2:** The Photo Archive In Classroom At TIB Using The *ATBM*. Source: <https://stttekstil.ac.id/timeline/tib/>.

To strengthen this statement, an interview was conducted with a children's book illustrator, named Fanny Santoso. Based on the results of the interview, Fanny responded that in the process for making a picture book illustration the illustrator had to read the script and understand each scene per page. Fanny explained how she adapts stories to the non-fiction or historical genres, namely by conducting cultural research, such as how to dress, jewellery or accessories, physical appearance, cultural background, beliefs, means of transportation, geography, society, even the existing buildings. Cultural research is very important to determine what kind of visualization to use because the colours or symbols of each region are different. After that, the illustrator should arrange a mood board containing references so that it ends in what type of colour palette to use, as well as the details to be used in the illustration. The presentation of illustrations in picture book for children with the theme of non-fiction or history can be adjusted using child-friendly illustration style adjustments. The important stages of making a comic book can start from designing a script to be approved by the editor, and being able to carry out visual design discussions for comic books as well as being able to conduct research assisted by the visual editor, so that the illustrator will understand the script and make a rough storyboard for approval until it can be processed into the final storyboard and enter the colouring stage.

To ensure that the picture book illustrations presented can be understood by the readers, especially children, they can carry out a stage called field testing, namely when the process of making a comic has reached 70%, it will be formed into a predetermined format and will be tested on target readers, such as children. The input or impressions given by the child while reading the book can be used as input to improve the comic book and can test whether it has begun to be understood by the target readers, so that after working on the determined improvements, the comic book can be released.

## 4. Discussion

All the descriptions and events that are told can be used as data for the basis for designing historical themed picture book for children. In this case, the authors and illustrators conducted cultural research to determine how the daily visualizations of each region have different habits at each time. After collecting data and references, the team can proceed to the stage of writing a story script and continue the visualization of the script into a character design, which is continued in the storyboarding stage and continues with the finalization of colouring and reading testing for the target reader to find out whether the characters that have been created meet the understanding requirements of the reader, which will be developed into characters in children's comic books.

### 4.1. Message Concept

The concept of the message to be conveyed from this design is to find out the history of Majalaya textiles which was carried out by 4 women known as Majalaya textile milestones who succeeded in establishing an influential company in Majalaya in the 1930s through a visual storytelling that was easily understood by children aged 9-12 years.

### 4.2. Creative Concept

The creative concept for providing appropriate historical aspect for children 9-12 years is through an approach through a series of children's illustration books entitled where the delivery of scripts, illustrations, and detailed illustrations has been adapted to the results of observations and simulations that have been carried out. This book will tell

about how things were in Majalaya in ancient times and the activities of these women and about the textile company at that time.

### 4.3. Design Concept

This character design uses cartoon-themed illustrations, and is made using digital techniques. The character was designed using real photos as reference. For the colouring techniques, this character illustrator uses Procreate as the colouring software and traditional batik fabrics as inspiration for the colour scheme.

Based on literature references and reference photographs, female characters are the main focus in this visual storytelling, because the main activity carried out in this book is weaving, which was mostly done by women at that time. For the characteristics of his appearance, Oya Marliyah's character is divided into 3 phases, namely when she was a child, teenager, and old age.

In the form of children character, Oya's character wore a green kebaya and *Batik Pesisiran* cloth, and her hair was neatly braided in two. *Batik Pesisiran* cloth was chosen as the bottom based on findings from reference photographs. In the form of teenager character, Oya's character appeared with her hair in a bun, and still wearing the same kebaya with a middle button, and 7/8 sleeves showing gold bracelets and necklaces. For her undergarments, teen Oya wears traditional Kawung batik cloth. In the old age phase, Oya's character appears with her hair in a bun like when she was a teenager, but added a headscarf that covers part of her hair. The green kebaya is still used as a characteristic of this character, while the difference is that the old Oya character wears batik cloth with a more uniform pattern, namely the Parang motif in brown color.

This sketch was made based on the moodboard used to prepare the design visualization, taken from historical activities related to phenomena, illustration style, and color adaptation.

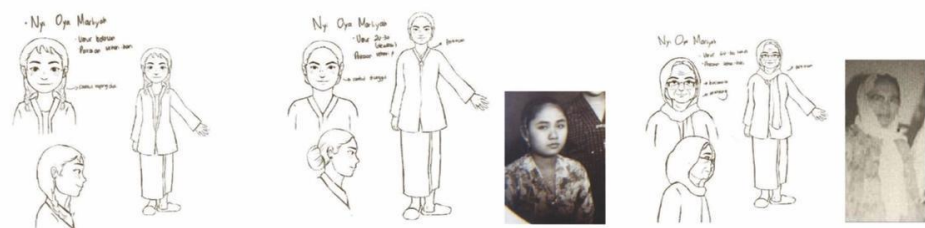
The form of historical activities used as a reference are photos from 1920, in the form of photos of weaving activities, vehicles, traditional houses, as well as family photos obtained from the family archives of Oya Marliyah descendants. Apart from that, the illustrator also collects illustration references specifically for children, on the same theme, namely historical and cultural conservation through children's visuals. The concept that is clearly visible from these reference images is the bright color

scheme, adapted from various Indonesian cultural decorations such as textiles, especially Majalaya sarongs, and traditional costumes. Apart from that, the illustrative scenes that are used as references are those that have scenes that are more or less the same as the main theme of the media storytelling that is being designed, namely weaving activities, dancing, or public gatherings with family members.



**Figure 3:** (Moodboard for illustration references). (Credits: Aliya Nuzul Saskia, 2023).

The following is an implementation of a reference moodboard in the form of a character design. The design is made from a sketch step first and continued with coloring using digital coloring.



**Figure 4:** (Oya Marliyah character design sketches and photo references). (Credits: Aliya Nuzul Saskia, 2023).

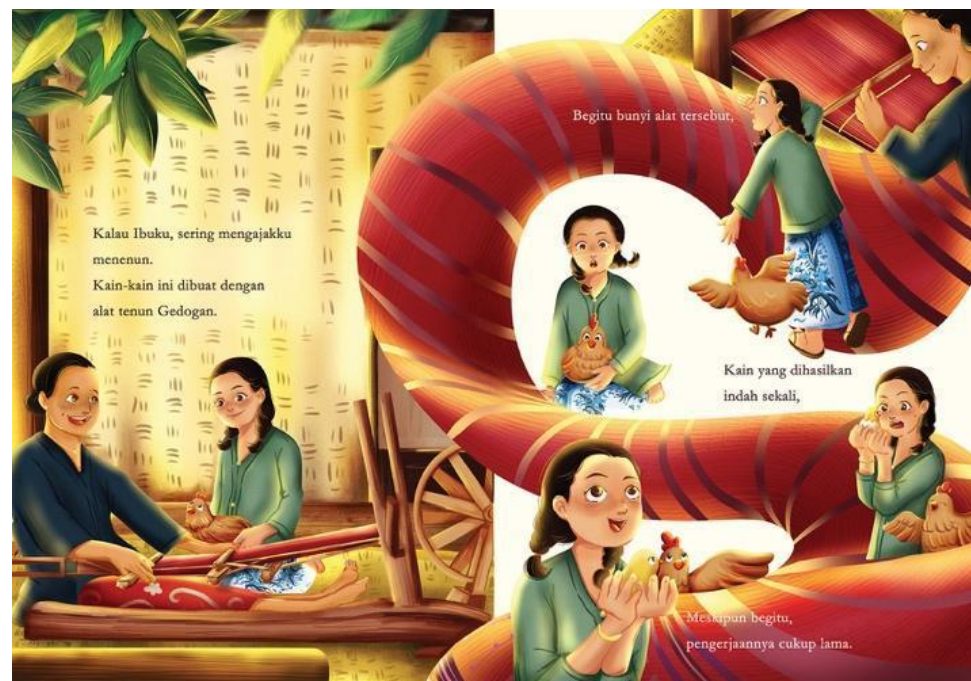
The following is an implementation of the character design with a background made from references. The design is made from sketching and storyboarding first and continues with coloring using digital coloring. The scenes are created based on the script breakdown created by the writer.

## 5. Conclusion

To reintroduce the history of the Majalaya weaving, that targeted at the younger generation, namely children in Majalaya from the age range of 9-12 years using an illustrated book approach that tells about the history of weaving in Majalaya by using Oya Marliyah,

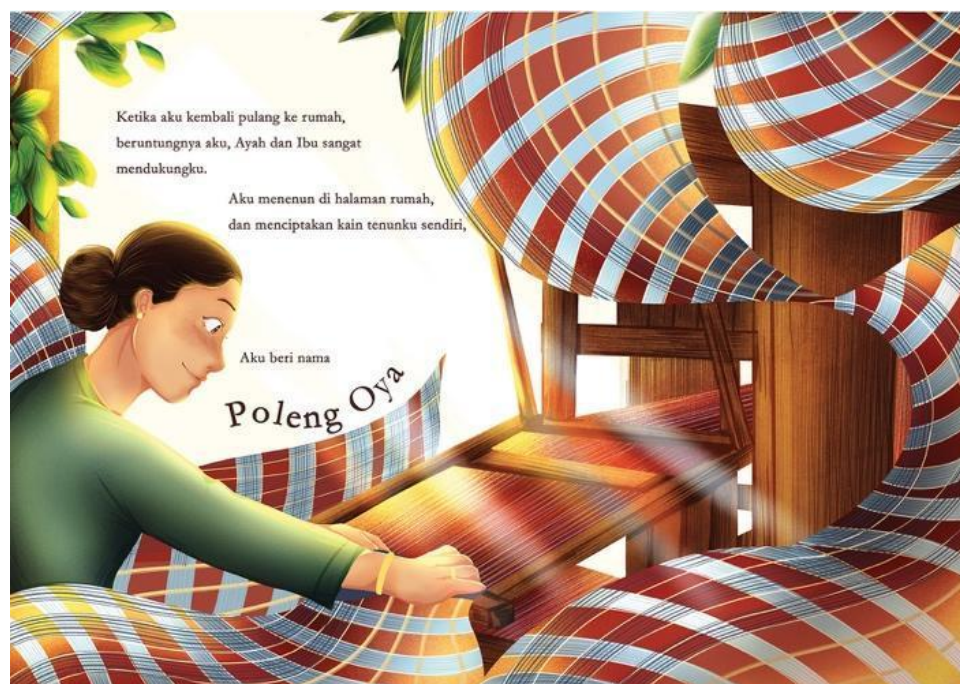


**Figure 5:** (Oya Marliyah character design in colored version). (Credits: Aliya Nuzul Saskia, 2023).



**Figure 6:** (Oya Marliyah character in the settings). (Credits: Aliya Nuzul Saskia, 2023).

one of the four women founders of textiles in Majalaya as the main character. The design of illustrated books that use visualization that is in accordance with the target, starting from the visual and narrative design methods can help the reader to better understand the contents of the story being told. The research employs a participatory approach, including historical data research and interviews with community leaders who are descendants of the pioneers. It seeks to develop visual storytelling potentials, primarily through character design, for children's picture books.



**Figure 7:** (Oya Marliyah character in the settings). (Credits: Aliya Nuzul Saskia, 2023).



**Figure 8:** (Old Oya Marliyah character in the settings). (Credits: Aliya Nuzul Saskia, 2023).

In conclusion, the research endeavors to ensure that the history and cultural significance of Majalaya weaving, as well as the contributions of women pioneers, are preserved and transmitted to children through engaging and informative children's picture books.

## Acknowledgments

The authors would like to thank Ibu Wulandari as the descendant of the late Oya Marliyah, as well as the remaining family members of the pioneers of Majalaya Weaving.

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