

Designing Urban Toys to Support Local Traditional Arts

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Abstract—This article reports the urban toy design process as a result of the visual style transformation of Wayang Topeng Malang (WTM), one of the traditional arts in Malang, East Java, Indonesia. The visual style which has been acquired by ATUMICS method combines decorative elements on the headpiece (urna, sinom, and cula), the color of the mask, the expression of the mask with a humanoid body shape wearing an urban teenage fashion style. The team designed the looks of the character and discussed it with several stakeholders through focused group discussion (FGD), including performance art academics, WTM Artist, illustrators, and urban toys community in Malang. The FGD conducted twice. The first one is to choose the final design of the character, and the second one is to breakdown models/toy parts. This design process results in a 3D model of urban toy design that is expected to preserve local traditional culture.

Keywords: *Wayang Topeng Malang, visual style, urban toys, character design*

I. INTRODUCTION

Local traditional arts are considered unappealing to most teenagers in Indonesia. For example, in Malang city, East Java, Indonesia, more than 50% of teenagers do not know about the local traditional art of Wayang Topeng Malang (WTM) [1]. Teenagers prefer to consume popular culture from other countries, such as Korea and Japan. However, if observed further, Japanese popular culture also takes much inspiration from the traditional culture [2]. The advance of Japan's popular culture export also supported by its government [3]. This action should be implemented to help the local traditional arts to be sustainable.

The urban toy is one of the popular cultures that recently become popular among teenagers, and become an identity of lifestyle in the urban areas [4]. Urban toy communities have emerged in several cities in Indonesia. Also, a paradigm shift within the community began to emerge, that traditional culture inspired their recently designed urban toys.

The previous research creates codification of WTM in the form of visual style keywords to inspire urban toy character design through the ATUMICS method [5]. Furthermore, there were three main keywords in the visual style of WTM, namely: decorative elements (urna, sinom, cula), colour, and mask expression. The design of the urban toy will combine the visual

style of WTM with today's adolescence fashion style. This mixture signifies that urban toys are an alternative combination of popular and traditional culture that functions as a visual communication that can influence people's perception [6]. Thus later, the high value of WTM can be enjoyed by a wider audience, especially to adolescents.

Previous research has claimed that urban toy is a new alternative media to promote traditional culture [7]. Moreover, some studies attempt to preserve WTM, such as in the form of book design [8,9], development of its creative industry, and export [10,11], also arrangement of WTM presentations in cultural tourism [12]. However, research about creating popular culture products from WTM is still scarce. This article describes the process of creating an urban toy design inspired by WTM.

II. LITERATURE REVIEW

A. Urban Toys Character Design

The urban toy is one type of toy that focuses on the visual appeal of the character design. The urban toy is an example of the extension of the creative and critical practice field that centered on character design merchandising [13]. Furthermore, it claimed that urban toys provide a room for a collaboration platform for artists to create something new. The visual appearance of character designs in urban toys can carry the idealism of the artists and another idea, such as traditional culture. Moreover, the visualization of urban toy character design reflects the changing lifestyles of urban communities [14]. Also, it is very familiar that the appearance of urban toys complemented with several urban fashion statements such as hoodies and sneakers.

An urban toy also offers novelty compared to toys in general. In addition to the character values and designs mentioned earlier, the materials used by urban toys are as varied as vinyl, textiles, metal or wood [15]. These materials often used simultaneously; for example, the addition of accessories with fabric material in a vinyl material urban toy can add to the selling value of these toys. Technological innovations make raw materials cheaper, coupled with the 'maker movement' trends where everyone competes to make their products, increasing diversity in the urban toy designs

[16]. Urban toy designers will apply their style to create distinctive character designs.

One particular style that often appeared on urban toys is the cute style. Cute style can cause social attitudes, such as communication and friendship [17]. This cute perception of character design is similar to what appears on the face of a baby or a cat so that at first glance, the audience will want to approach and care for it. One example of urban toys with this style is Unicornio from Tokidoki [18].



Fig. 1. Unicornio by Tokidoki.

According to the picture, Unicornio has a cute design. The visual style is simple but comes with a variety of contrast that distinguishes one design from another. The majority of urban toys have a concept like this, the same shape but with little differences.

B. Wayang Topeng Malang

The unique visual style on WTM depicted on the head (mask). There are at least 14 visual elements of WTM [19]. Other research claimed that there are eight visual elements of WTM [20]. The second research mentions fewer visual elements because there is an attempt to simplify the visual style of the mask that made into a virtual character. The third research stated that reducing the WTM visual style to three main elements: decorative element, colour, and expression [5]. These three keywords that are considered essential to represent the overall visual style of WTM as inspiration for the urban toy character design. First, the decorative elements of the mask symbolize the philosophy of the relationship between humans and humans (urna), the relationship between humans and nature (sinom), and the relationship between humans and God (cula). Second, WTM has five primary colours: green, white, red, black, and yellow [21]. Third, smiling expressions are characteristic of the masks that are specific to WTM.

The protagonist in the WTM tale is Panji Asmorobangun. Asmorobangun mask has three complete decorative elements, namely urna, sinom, and cula, it symbolizes that Asmorobangun has a perfect relationship with humans, nature, and god. Asmorobangun's mask colour is green, which symbolizes peace and fertility. Asmorobangun has a smiling expression. The urban toy character design will take inspiration from those visual styles on Asmorobangun character.

III. METHODS

The design process methodology of this urban toy's design derived from character design methodology [22], starting from references cross-checking, thumbnailing, detailing, and colouring. Reference cross-checking conducted after obtaining the keywords of WTM visual style using the ATUMICS method in the previous research. An alternative design made with 2-Dimensional techniques, then the results are discussed with several stakeholders in the Focused Group Discussion (FGD). The stakeholders are academics majoring in performance art, WTM artists, illustrators, founders of urban toys communities, and 3D print industry in Malang.

The FGD was held twice, on 11 September 2019 and 13 September 2019. The first discussion purpose is to criticizing and choosing the final design of the urban toy characters from Asmorobangun. The second discussion purpose is to discussing technical matters related to 3D models and the creation of the urban toy. Both of the FGD recorded using a smartphone.

IV. FINDINGS AND DISCUSSION

As mentioned in the previous chapter, the process of designing urban toy design begins with the formulation of keywords using the ATUMICS method. The next step is describing the overall concept design of the urban toy. The urban toy uses Panji Asmorobangun's figure as its inspiration. The urban toy combines traditional and modern visual styles. The traditional style emerged from WTM, while the modern style emerged from the urban fashion. WTM's visual style consists of decorative elements (urna, sinom, and horn), colour, and expression of the mask. The visual style of urban fashion focused on the adolescence everyday outfit such as sneakers.

The next process is reference cross-checking, making thumbnails, and detailing. This process is carried out by the illustration team with two-dimensional techniques. At this stage, several references are used, which include original WTM pictures and photographs, urban visual toys proportions and styles, also adolescence fashion styles. Some of these references are used to transform alternative forms of the urban toy character design. Also, the image of Asmorobangun in the WTM dance helped visualize the urban toys. In the story of the dance, Asmorobangun told as an ideal Javanese male figure. In the Javanese language, it is called 'Mringin Sungsang', which means not fat and not thin, but ideal. Asmorobangun's face is told as beautiful as a woman and as handsome as a man. This presentation illustrates the perception of perfect Asian men. The thumbnailing and detailing process of character design for urban toys created based on the description, which visualizes in Fig. 2. There are several alternative designs for the urban toy's character made in a cute style. The visualization created in an attempt to search for the best proportion of Asmorobangun that depicts an ideal Javanese man, simplification of decorative elements of the mask, and modern teenage fashion styles.



Fig. 2. Thumbnailing process of design character for the urban toy.

The next process is to choose a representative design and then choose a suitable colour scheme. Asmorobangun's colour scheme taken from his green mask combined with yellow and brown colour. Green can mean fertility and growth. The green colour reflected as in the WTM dance entitled Rabine Panji, describing Asmorobangun figure who is looking for love. Yellow depicts cheerfulness as an extension of the symbol of the always smiling Asmorobangun's expression. While the brown colour can mean stability and accountability that symbolized the concept of a man that ready for marriage as in Rabine Panji tale. An alternative picture of the character design of the urban toy colour scheme seen in Fig 3.



Fig. 3. Coloring process of design character for the urban toy.

After obtaining an alternative character design, the first FGD phase conducted to pick a final design. The FGD participants consisted of majoring academics in performance art, WTM artists, illustrators, founders of urban toys communities, and 3D print industry in Malang. From this discussion, there are three findings from the overall design. First, the character design does not represent the visual style of WTM. The transformation process simplifies the shape too much, thereby eliminating the iconic shape of the mask. Moreover, to maintain the visual characteristics of WTM, the shape of the mask in urban toys must be made similar to the original shape of the mask by maintaining the iconic shape on the 'T' area (area in the eyes and nose). Second, the character's design seems to have a green face, not wearing a mask. This visual happens because there is no clear boundary between the head and the mask shown in the picture with the character's

ears, which are also green. Third, the visual style of the mask must be emphasized from the rest of the urban toy elements. Thus, the visual depiction of the urban toy fashion should be more subtle so that the mask remains the main visual icon.

The urban toy character design was further revised using a three-dimensional technique in order to get a clear picture of how the final shape and form of the urban toy visualized. On the revised design, the visual style of the mask emphasized further so that it becomes the center of attention for the whole model. The iconic shape of the WTM eye (gubahan) is retained, and the nose shape is given crisp detail to better show the hard surface impression of the mask. The results of the design revision visualize in Fig 4.



Fig. 4. 3D model draft of the urban toy.

The 3D model then discussed again through the second FGD phase. In this FGD, there were four findings of problems from the design of urban toys. First, the shape of the toy must be made simpler because the urban toys distributed in a blank condition so that the collector can custom them as they like. The concept of this urban toy's design will accommodate the desire of collectors to custom creations of other characters besides Asmorobangun, but still using the same toy base. Second, all the parts of the toy must have a relatively large size, so that it will facilitate the printing and molding process. The 3D Model has several small parts, such as the parts of the arms and fingers that broke easily during the production or post-production process. Third, the urban toy will have standing poses, because looking back at the trends of urban toys that the majority using standard standing poses. With a standard standing pose, the audience will focus on colours in the urban toy results from the collector's custom work. Fourth, the addition of fabric material in the form of a scarf creates uniqueness for the urban toy. The addition of this fabric material also reflects the shawl worn on the WTM dance. The transformation from shawl to scarf is a modernization attempt to match adolescence fashion style.

Both FGDs were contributing to the final 3D model that was ready to print, which accountable in the term of concept and creation technique. The 3D model of the urban toys from head to toe visualize in Fig 5. The head section has a decorative mask ornament consisting of urna, sinom, and cula. In the sinom part, intentionally left uncarved and undetailed, so that the collector can customize or decorate the part further. The

eye of the mask has a 'gabahan' shape following the original form of the WTM. A smile expression giving the whole face a cuteness looks. The hair part uses 'gelungan' hairstyle because it depicts the image of Asmorobangun as a warrior. Before the real scarf made from fabric given to the final result of the urban toy, the 3D modelled scarf given in order to show the complete looks of the design. Shirt and pants parts made simpler so that it can be customized further by the collector. The fingers visualize the hand gestures of the WTM protagonists. The shoes use sneakers model that becoming icons of urban adolescence fashion.



Fig. 5. 3D model of character design for the urban toy.

As a suggestion, the colour concept given to the final 3D model that previously presented in the initial design. The combination of yellow, green and brown. The application of colour 3D model seen in Fig 6.



Fig. 6. The colored version of 3D model for the urban toy.

The finalization of the 3D model is carried out for preparing the next process printing process. The complete model will be printed with a 3D printer. The model will be printed without the 3D modelled scarf because it will use fabric material.

V. CONCLUSION

This whole design process produces a final 3D model that is ready to be printed with a 3D printer. The height dimension

of this 3D model is approximately 12 cm. This initial printout model will become a master and will be mass-produced with resin material. The next plan for the urban toy is product activation by inviting several stakeholders related to WTM and urban toys. In this activity, urban toys will be distributed and customized by stakeholders, and the result will be published through social media to get a response from a wider audience. The product activation is expected to give feedback and comment that can further develop the product, and in time it will be a new alternative media to preserve the local traditional arts.

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