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To cite this article: T Wiraseptya *et al* 2019 *J. Phys.: Conf. Ser.* **1339** 012034

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Interactive Map Model of Flat Design for Istano Basa Pagaruyung Tourism Development

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Abstract. The power in conveying messages to communicants is a form of active media. There are many things and forms of media that developed in the digital era today. Of course, the development of the media to be more friendly and close to the community will make it easier to convey the message. The media is also the most important part of supporting the tourism sector. Especially in the cultural tourism sector that we are familiar with cultural heritage or historical heritage. one of them is the Rumah Gadang Istano Basa as a historical heritage of West Sumatra. The map that is part of the sign system is certainly very needed for visitors. A flat design that is appealing in a way that will certainly help increase the interest of visitors, especially this makes it easier to share information through digital technology such as smartphones. This map design method will adapt to the Waterfall design method created by Pahl and Beitz. In the design process, it will go through the requirements analysis, design, implementation, integration testing and ending with maintenance. Of course, the design of maps that use this digital application must follow a structured stage of the Waterfall method. Then, the design which becomes an important point in this design is the concept of infographics that is clear and has the power in readability.

1. Introduction

The current condition of media development looks more environmentally friendly. This is helped by the many technologies that are close to the community. Especially supported by creative design that is able to collaborate with the latest trends. This is intended to bring design emotionally closer to the community.

If we interpret media in the context of design, the media is a means or means of communication. Such as newspapers, magazines, radio, television, films, posters, banners and others. The point is the tool as an intermediary and liaison.

In tourism, sector media plays a role in supporting tourism development. The government uses the media as the main means of introducing tourism power to local tourists and foreign tourists. This is very relevant that the media until now has been a strong factor in providing information to tourist visitors.

Maps that can be linked to directions are certainly a necessity for tourist visitors. The lack of directions will confuse tourists in visiting tours. The importance of instructions is realized to be able to support tourism development.



The most famous cultural tourism in West Sumatra is the Rumah Gadang Istano Basa Pagaruyung located in Tanah Datar district. Rumah Gadang is a form of traditional Minangkabau tribal house, a native tribe that inhabits the area of West Sumatra. Rumah Gadang Istano Basa is the king's residence in the past which is now a symbol of the richness of Minangkabau culture and can be visited because it is a cultural tourist attraction in West Sumatra.

If you look at this Rumah Gadang Istano Basa, the maps and information available are not enough to provide an explanation for tourists. Even the existing information media as a description of historical objects has been very long and there is no renewal. As a result, the Rumah Gadang Istano Basa is just a place for photo documentation without being able to find out the history of the Rumah Gadang.

With the lack of interactive media at Istano Basa the current base, especially in the digital era. Istano Basa should have media that is able to interact with tourists. To develop interactive cultural tourism without eliminating the essence of Minangkabau culture, the Rumah Gadang Istano is one of the ways in which it is in the user interface using flat design techniques.

2. Theory

2.1. Media

Media is a means or means of communication that is located between two parties between individuals, groups and some of them. In the design of intermediaries, it is media newspapers, radio, television and others.

Details of some design media:

1. Print, mass media facilities that are printed and published periodically such as newspapers, magazines, and others.
2. Electronics, mass media facilities that use modern electronic devices. Like television, radio, and smartphones
3. Films, media facilities that are broadcast using film equipment.
4. Advertising, a means of mass communication that provides several forms of advertising.

According to [1] and [2], that media (the plural form of the medium), is a word derived from the Latin *medius*, which literally means 'middle', 'intermediary' or 'introduction'. Therefore, media can be interpreted as an intermediary or delivery message from the sender to the recipient of the message. Media can be in the form of material (software) and / or tools (hardware).

Each of these types of media has its advantages and limitations. The advantage of the finished media is that it saves time and energy for the procurement. Instead to prepare media specifically designed to meet certain needs and squeeze a lot of time, energy and costs because to get results and authenticity a series of validation activities are needed.

2.2. Digital Media

Digital media is a form of electronic media where data is stored in digital format. Digital media is also a form of technological progress in the development of culture. Digital media is called by new media. Where it has strong characteristics to provide information.

According to [3], that new media as telematic media were different electronic technology devices with different uses. This electronic media or digital media device includes several technological systems, transmission systems (cable and satellite), miniaturization systems, information retrieval, and retrieval systems as well as image presentation systems. For the presentation of images in digital can be in the form of video media, flyers, photos and others such as print media with different forms.

2.3. Rumah Gadang Istano Basa Pagaruyung Tourism

Rumah Gadang Istano Basa Pagaruyung is a historical building founded by a king named Adityawarman. Istano Basa Pagaruyung is a palace name for the Minangkabau tribe. The name Pagaruyung comes from two words namely "paga" (fence) and "ruyung" (ruyung), namely the area of Adityawarman's power which is fenced in by Ruyung or Kuamang trees in The Regency of Tanah Datar [4].



Figure 1. Rumah Gadang Istano Basa Pagaruyung [5].

3. Methodology of Design

In designing an interactive media house, the Rumah Gadang Istano Basa will be used the waterfall method. The name of this model is actually "Linear Sequential Model". This model is often referred to as the "Classic Life Cycle" or the Waterfall model (Figure 2). This model is the first model to appear in 1970. This model is often considered ancient but is the model most widely used by designers.

There are five stages in the waterfall method, namely:

1. Requirement Analysis,
2. system Design,
3. implementation,
4. integration & Testing, and
5. operation & Maintenance.

The waterfall design method that has been adapted to the design of interactive media of Rumah Gadang Istano Basa:

1. Requirement Analysis
At this stage data collection through qualitative methods and swot analysis. Data will be collected to formulate problem boundaries. This activity includes starting from surveys, documentation to discussions that have been conducted.
2. System Design
Determine the stages of design and use of media that are suitable as interactive media. Each design will be carried out one by one according to the stages of designing design.
3. Implementation
Group the design results that have been designed. Then create applications and videos that have been designed. The media will be synchronized on the map that has been designed.
4. Integration Testing
Test the application folder in which it will be connected to interactive scaffolding media. This assessment will determine whether or not a design is running.
5. Maintenance
The design can be run through a smartphone and can be concluded whether it works or not. Periodically, the interactive information media at the Rumah Gadang Istano Basa can be replaced and adjusted to the conditions.

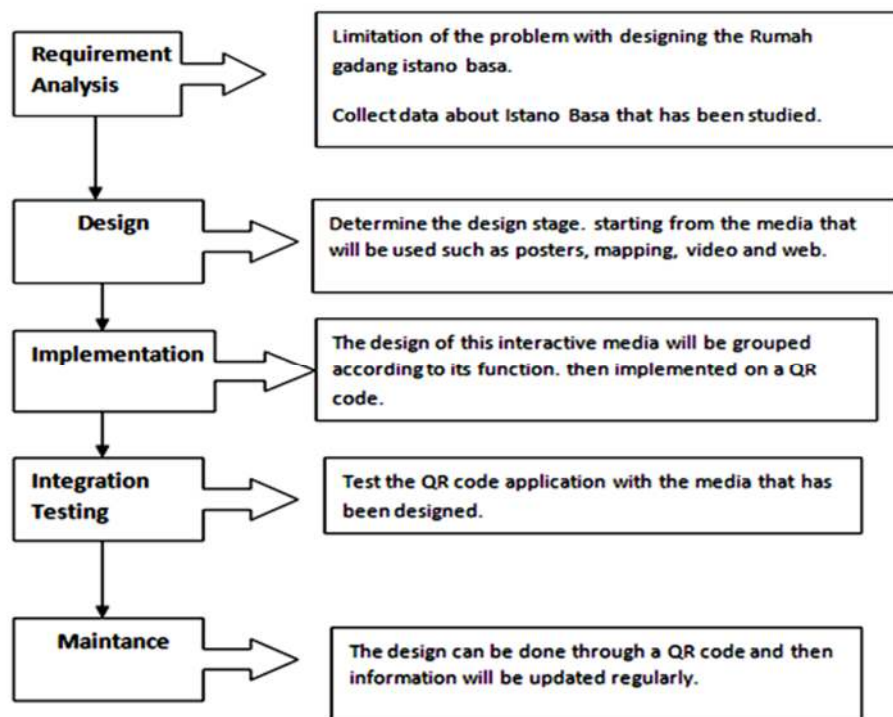


Figure 2. Waterfall design framework.

4. Discussion and Result

4.1. Design

In the design, there are several buildings that are the focus of the design, namely the Rumah Gadang Istano Basa, The Convent, The Tabuah Larangan, Surau, Kitchen, Balairung.

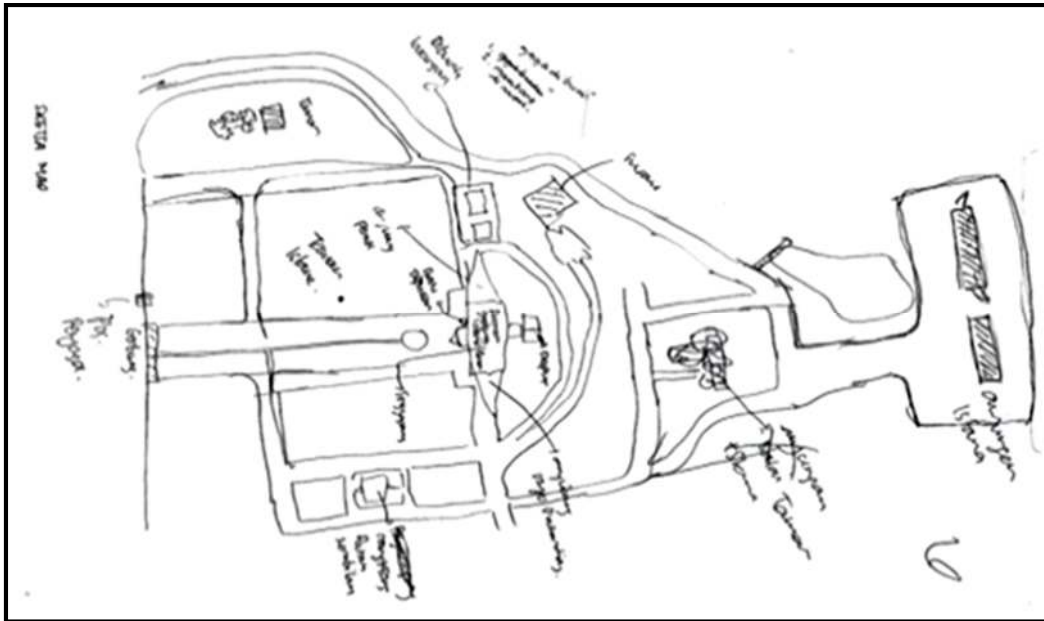
This design includes:

1. Istano Basa Map / Signage
2. Video Infographics

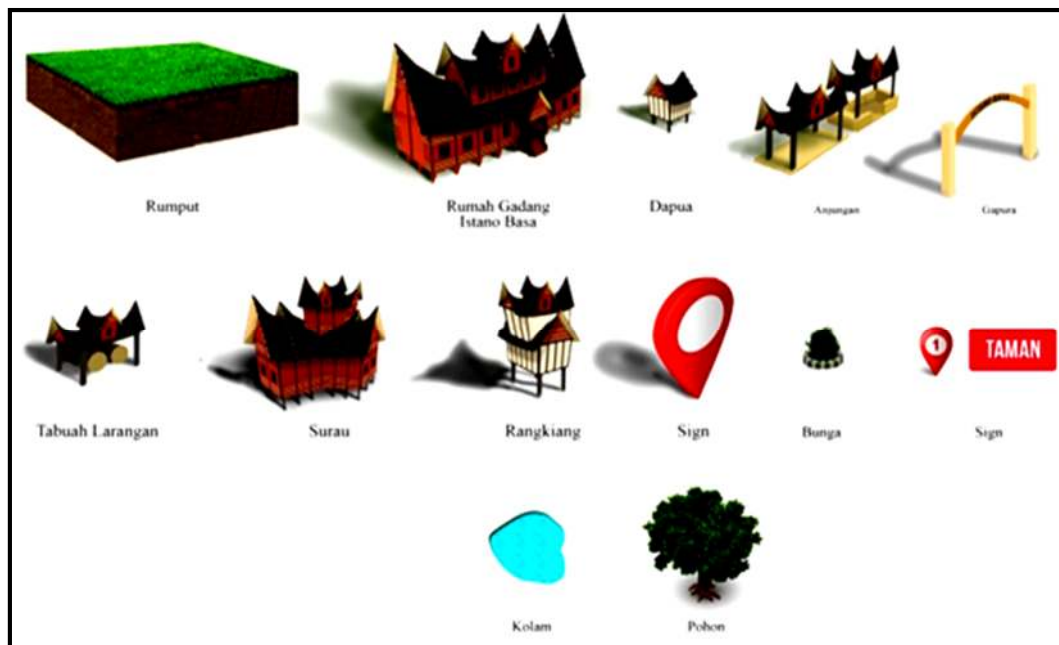
4.2. Map Design

The design of this map is intended for tourism in the Rumah Gadang Istano Basa. Because the map is designed in the form of digital imaging with elements that make it easy to see.

1. Sketch

**Figure 3.** Sketching map of Istano Basa.

2. Symbol

**Figure 4.** Symbol of map Istano Basa.

3. Colors

Color has an important role in every human activity because color influences the delivery of messages or impressions for a visual form. In designing maps, use several colors that are universally known, among others, as follows:

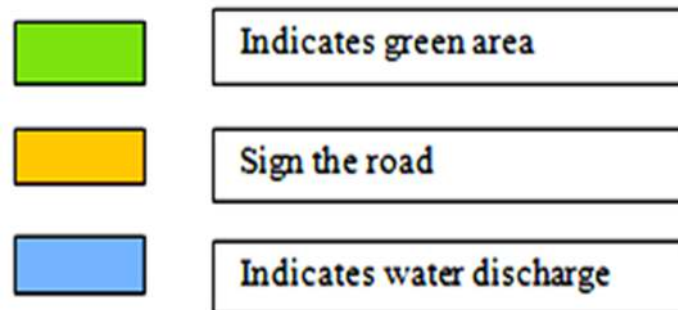


Figure 5. Colors on the map.

4. Typography

The typography used is a uniformity of the results of a formal design form and clear visual readability, namely the type of Myriad pro using bold condensed is used as the main text. Font selection is based on map functions so that the readability is clear.



Figure 6. Myriad Pro Font.

5. Infographic Video Design

Rangkiang is located in the yard of Istano basa with symbols as the prosperity and strength of the Minangkabau. The design of this infographic, of course, must have values that are able to interact with visitors. With modern design and short duration will be able to provide information to visitors to the Rumah Gadang Istano Basa.

6. Storyline

The design of infographics in the form of videos with a duration of 30 seconds. The icons used are fonts and lines.

00.00.00 The cage is on the left and right side of the empty space for infographics

00.00.02 Opacity drops to 30% and makes it dark.

00.00.03 Opacity is still at 30%, graphics and fonts appear

00.00.05 Opacity is still at 30% the graphics are visible and the animation is still running.

00.00.30 Opacity is still at 30%, duration up to 30 seconds. With the san serif font, the readability of writing is clear.

7. Visualization of Work

Visual Layout sets the composition of the design, to find the shape and balance with the design concept.

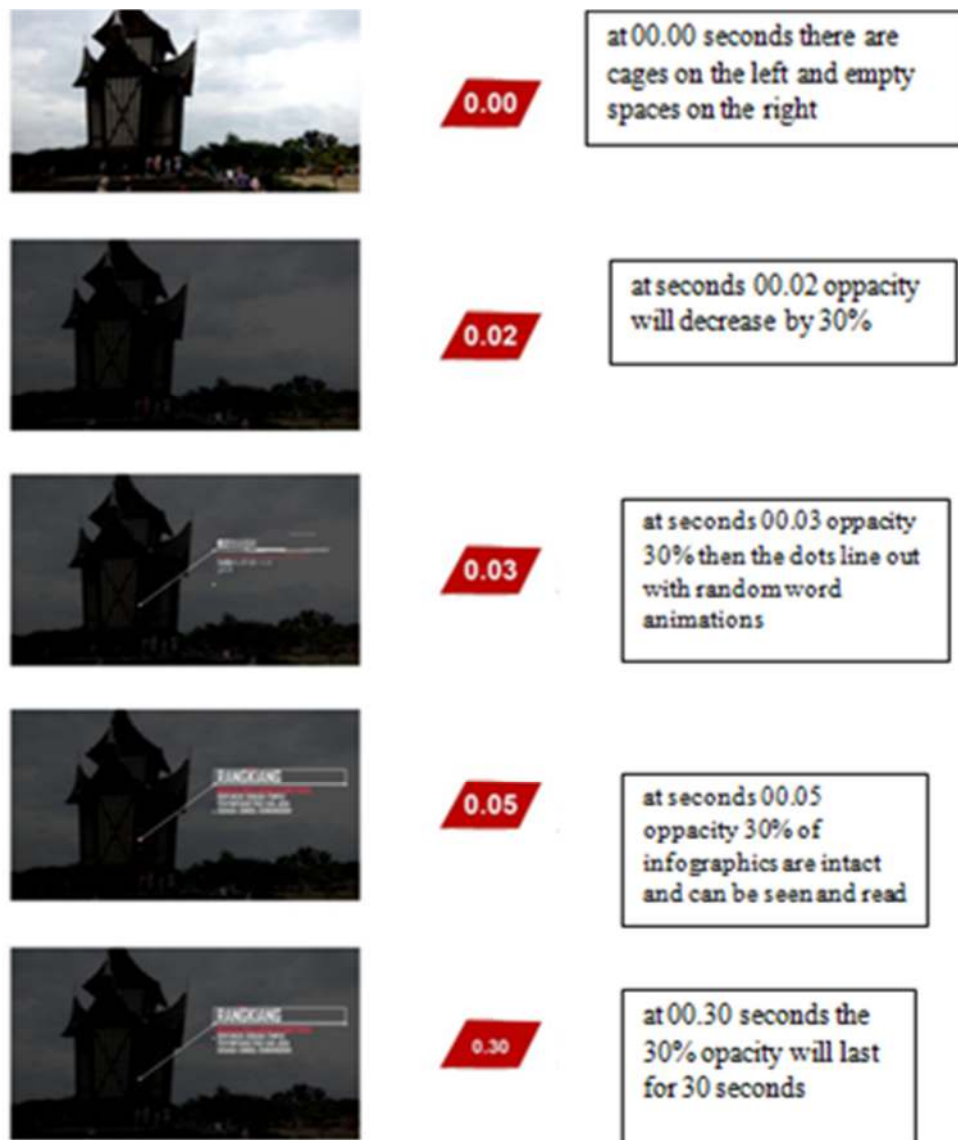


Figure 7. Designing video infographics.

8. Integration Testing

In applying a map with the flat technique the design will be synchronized with infographic video that can be viewed on a smartphone.



Figure 8. Final result Map.

5. Conclusion

For Istano, the basic need for media that is able to interact directly with visitors will be an important role. Behind the magnificent Istano basa by maintaining its uniqueness as a culture. Certainly hoping that someone knows this comes from a long history. Need media that can always provide information to everyone who comes who is able to answer quickly.

Interactive media can answer that question. With the development of technology and easy access to information, it will be a positive point for this design. However, technology will continue to grow, many new technological innovations emerge then replace the old ones. But, while the needs of people for smartphones are still there, this design will be very flexible to share information.

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