

# Design Thinking Implementation in Tourism Map

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## ABSTRACT

This study aims to describe the use of design thinking methods on the design of tourist maps. The lack of literature discussing the design thinking process in map design is also the reason this research. The use of design thinking in this study served to convey the character of the Semarang Chinatown in map design to help tourists, tour guides, as well as economic progress and strengthening the identity of the area. The characteristics of the Chinatown area include history, culture, commerce, business, culinary, and religion. The objectives to be achieved in this research are visual communication design solutions through design thinking in a specific and useful map design area through the process of applying design thinking. This study uses design thinking methods, which include empathy, definition, ideate, prototype, and test. The results of this study found that most visitors had difficulty finding street names. At the define stage, it found that several personal factors influence the design that can solve the problem at the empathy stage. At the ideate stage, it found that the most appropriate choice to represent the map was to use a 3D map model. At the prototype stage, it found that by using the technique of folding two folds parallel and doubling, this made it easy for maps to be stored and seen anywhere. In the testing phase, it found that the design of the tourist map helps tourists find the desired place and tour guide in showing and explaining historical and cultural locations and landmarks.

**Keywords:** *design thinking, map design, tourism map, pecinansemarang.*

## 1. INTRODUCTION

Tourist maps are things that often found in every tourist spot. Tourism map can be one of the useful promotional media to develop place branding. The ease of using digital maps is now helpful in finding ways if someone gets lost. [1].

Tourist attractions with unique characteristics such as Chinatown Semarang have a lot of potentials that can promote. Semarang Chinatown, located in the center of Semarang, Central Java province - Indonesia, is a tourist area with authentic [2]. The various characteristics of the Chinatown in Semarang require a tourist map design that can display and inform the characteristics [3]. Unfortunately, now the Semarang Chinatown region does not have a tourist map, so many visitors and business visitors lost in finding a particular alley or location.

The design thinking method is considered appropriate to be a bridge from the Semarang Chinatown tourism map design. Design thinking, which is a human-centered thinking process, becomes the right means to produce designs that can be close to its users

as well as the Semarang [4]. Previously there was no tourist map design with the design thinking method. If a design can be a solution to the problem, then the design has value and can be remembered by the target. Also, it becomes a pleasant experience for its users so that user-directed designs can be the right solution in this [5]. In the context of the Semarang Chinatown, an effective tourist map design can be an economic breakthrough for business people, local tour guides, the government, and SMEs in line with the [6].

The lack of literature concerning the design thinking process in designing tourism maps is also a strong reason for this research. This study aims to describe the process of design thinking in designing the Semarang Chinatown tourism map. [7]

## 2. METHOD

The method used in designing the tourist map is the design thinking method. This method is known as a comprehensive thought process that concentrates on creating solutions that begin with a process of empathy for a particular human-centered need leading to the define stage to clarify and describe the needs obtained from the previous empathize process. After the define stage, the design thinking process continues with the ideate process, which includes a design process that concentrates on making ideas that focus on concepts and outcomes. After going through the ideate process, then proceed to the prototype stage, which is the making of repetitive samples that are intended to answer problems that bring design closer to the final solution. Then from the prototype stage will enter the final stage, namely test. It is testing the prototype which aims to get feedback from users and is useful for evaluating the results of design work, [8]

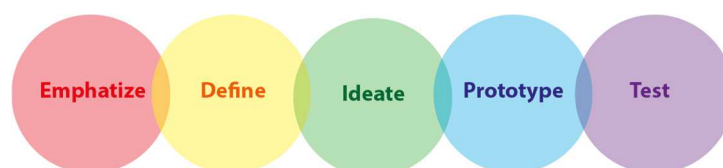


Figure 1. Design Thinking Process  
Source :Platner, 2010

## 3. RESULT AND DISCUSSION

Design thinking discussed the problem-solving approach by [9]. Human-centered in question is looking at user behavior and the problems that exist in the field when tourists come and visit Semarang's Chinatown that leads to empowering design innovation To use. Design Thinking is also used to find out the in-depth characteristics of existing problems, so the study conducted in the design thinking process is a structured process from the beginning to the final. The process of thinking design requires [10]. The stages of that used in this research belong to Tim Brown & Jocelyn Wyatt theory, namely empathize, define, ideate, prototype, test. The five stages are an integrated design planning process. Semarang Chinatown Tourism Map planning uses random sampling from local tourists, international tourists, businesspeople, and tour guides. Interviewed conduct to get insights that used as user-oriented thinking material, for more details, the stages will explain below.

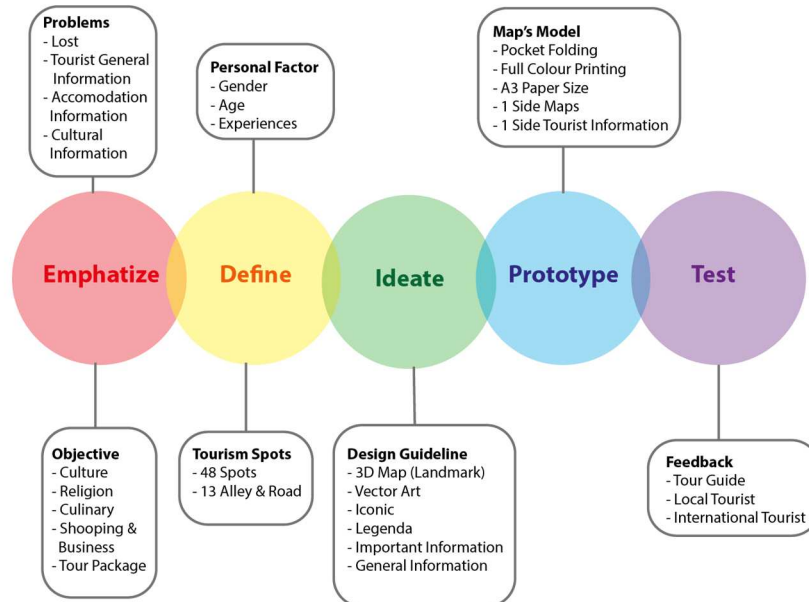


Figure 2. Application Design Thinking in Tourism Map  
Source :Ardhianto, 2019

### 3.1. Empathize

Empathize is the first stage of the design thinking process. At this stage, the Semarang Chinatown tourism map design planning uses a data search approach with observation, interviews, literature, and in-depth interviews. Observations were made in all areas of Semarang's Chinatown, while interviews conducted with 33 tourists and 12 traders/business people. In-depth interviews conducted with Mr. Ariawan, tour guide, and administrator of the Semarang Kota Lama community who is also a cultural observer in the Chinatown of Semarang. As for the results of the data, a search found that visitors to the region have several intentions and problems.

The most frequently encountered problem is the difficulty of finding roads, locations, and alleys in the area. Although there is already a digital map, some tourists are elderly tourists who rely on memory and understanding directions. However, the Semarang Chinatown has thirteen alleys and forty-two spots that can be visited by tourists so that it is quite a problem in the user experience.

The lack of general information about tourists causes users not fully to understand the full potential of the Semarang Chinatown. So it requires designing maps that have general information to tourists. Information about accommodation and cultural environment is also an obstacle in the user experience; these obstacles occur when users want to stay or rest for a while or in social with the local population. This problem requires information on map design regarding the information on cultural and communication so that users will understand the "life" of Semarang's Chinatown.

The first tourist destination is history and culture; the Semarang Chinatown Area is an area in the City of Semarang, Indonesia, which is very thick with Chinese culture. Semarang

Chinatown is where residents of Chinese descent since centuries ago settled in Semarang. Chinese culture and traditions that are still very well preserved make the Chinatown of Semarang an urban [11].

The second destination for tourists to come is religious tourism, Semarang's Chinatown is rich in temples, a place of prayer for Buddhists. The Semarang Chinatown area has eight temples which are scattered in the area and among the eight most prominent temples is the Tay Kak Sie Temple, which is located in Gang Lombok and is also one of the temples in the city of Semarang. Interestingly, the Semarang Chinatown with the eight temples has made Semarang Chinatown the most [12].

The third is culinary tourism. On weekends the Semarang Chinatown area is packed with tourists to enjoy dinner at Semawis Market. Semawis Market is a night market that has many food choices. Semawis Market began with the holding of the Semawis Chinese New Year Market in 2004, following the inauguration of the Chinese New Year as a National Holidays in Indonesia. Activities are carried out every Friday, [2]

The fourth is shopping and business, Semarang Chinatown offers a variety of alternative shopping[13]. This area has grown into a trade center that groups according to the types of merchandise and activities, such as gold traders in Gang Warung, cloth traders in Gang Warung, vegetable and grocery traders in Gang Baru and food vendors (restaurants) in WotgandulTimur, and banking in the Gang Tengah.

The fifth is a tour package provided by tour service companies in Semarang. Tourists presented and invited to tour the Semarang Chinatown for taking a photo and even stay in the area to enjoy nights and cultural performances around the Semarang Chinatown. The five tourist destinations become the initial capital for the design thinking stage for the design of Semarang Chinatown tourism map design.

### 3.1.1. Define

In the process of defining the data found that some personal factors influence the design that can solve the problem at the empathize stage. The user factors that most influence the design process of Semarang Chinatown tourism map design are gender, age, and experience. Visitors who come to Semarang's Chinatown are prevalent and diverse, almost all age groups visit and travel to this area, with male and female genders. However, what is different is the experience of the visitors. Some come for the first time so that they have problems getting lost on the road. Some have repeatedly visited the Chinatown in Semarang so that they memorize the places they want to visit. designing Semarang Chinatown tourism map will focus on tourists who have never come up. Also, with a general design for the gender of men and women and with friendly design for the most age group of visitors with the age range of 20-40 years.

Semarang's Chinatown has at least 48 tourist destination spots and 13 alleys and roads, each of which has tourism potential that is worth visiting by tourists[14]. According to observations made, it found that 67% of visitors did not travel to all spots due to ignorance and lack of information on the location or spot. Based on these data, the design of the tourist map design needs to provide precise mapping on each alley and tourist spots contained in the road and alley.

PECINAN SEMARANG			
Gate of Pecinan Semarang	<b>Gang Cilik (Cilik Alley)</b>	32.	MakutaJamu Café
<b>KH. Wahid Hasyim Street</b>	17. HooHok Bio Temple	33.	Tong Pek Bio Temple
1. Mukti Cafe	18. RumahKertas Art	34.	Bu Pini Nasi Ayam (Bu Pini's

		Chicken Rice)
<b>Gang Warung (Warung Alley)</b>	19. Stone Carving Bongpay	35. Panin Bank
2. Waroeng Semawis (Semawis Market)	20. DS Collive 34	36. Toko Pia dan Kue Bulan Cap Bayi (Pia and Moon Cake Shop)
4. Waroeng Kopi Alam (Alam Coffee)	21. Rhema House	37. Tek Hay Bio Temple
5. Chinese Painting & Calligraphy: Tan Eng Tiong	<b>Kalikipung (Kalikipung Alley)</b>	38. Ny. Oei Tjay Ek Restaurant
6. Cahaya Boen Tjit Restaurant	22. Roemah Pantes (Pantes House)	39. Pork Satay Ny. Gunung
7. Toko Obat Panca Jaya: Ngo Hok Tong (Drugs Shop Panca Jaya)	<b>Gang Tengah (Tengah Alley)</b>	40. Kumala cookies
8. SING Bak Kut Teh Restaurant	23. Bank Sinarmas	41. Ling Hok Bio Temple
<b>Gang Lombok (Lombok Alley)</b>	<b>Gang Gambiran (Gambiran Alley)</b>	<b>Wotgandul Street</b>
9. Ash House Kong Tik Soe	24. Homestay GoStay	42. Pharmacy Kharisma
10. Tay Kak Sie Temple	<b>Gang Baru (Baru Alley)</b>	43. Cahaya Restaurant
11. Lunpia Gang Lombok	25. Pasar Pagi	44. Siu Hok Bio Temple
12. Es Campur Gang Lombok (Mix Ice-Lombok Alley)	<b>Gang Pinggir (Pinggir Alley)</b>	45. CapKauw King Warm Drink Shop
13. Bolang Baling Snacks	26. Bank Mandiri	46. Kemah Kopi (Kemah Coffee)
<b>Pekojan Street</b>	27. Tjang Residence	<b>Sebandaran Alley</b>
14. Tjandra Restaurant	28. The Ribs and & Dips café resto	47. Hwie Wie Kiong Temple
<b>Petudungan Street</b>	29. Bank BRI	48. See Hoo Kiong Temple
15. Barongsai Culture	30. Bank BNI	
16. Puppet Potehi: Thio Tiong Gie	31. Babat Fried Rice Pak Di	
17.		

Table 1. Name of Location and Roads in Pecinan Semarang Tourism Map.  
Source :Ardhianto, et all. (2019)

### 3.1.2. Ideate

At the ideate stage, the most appropriate choice to represent the map is to use a 3D map model. 3D maps make it easy for users of all ages to understand the location and shape of the buildings thought [3]. The vector art approach is also used to build the 3D effect so that colors and shapes can be more user-friendly. 3D Maps are done iconically or mimic the original shape [15]. So the message delivered represents the original object/building.



Figure 3. Tay Kak Sie Temple and Tay Kak Sie Temple Icon  
Source :Ardhianto, et.all. (2019)

The design needs to answer the problem in showing the location and name of the historic building; a legend made in the Semarang Chinatown tourism map design. In addition to legends, mining of important information regarding accommodation, short history, working hours and events in Chinatown Semarang needs to be included in the map design. The selection of typography uses the type of sans serif for captions and Chinese writing letters as the title of the Semarang Chinatown tourist map. Sans serif chooses because it conveys the impression of non-formal and relaxed, considering the Chinatown is a tourist area [16].



Figure 4. Pecinan Semarang Maps Design  
Source :Ardhianto, et.all. (2019)

### 3.1.3. Prototype

The prototype stage is designing the design results to bring the map design closer to the final result. At this stage, using the technique of folding two parallel fold and bi-fold, this makes it easy for maps to be stored and seen anywhere. Printing paper in full color is a strategy to attract the attention of map users; attractive colors with shades of red represent Chinatown Semarang. One side of the map is used to explain the location and legend[14]. The other side of the map is used to provide information to tourists about the information about Semarang's Chinatown. The size of the map is equivalent to the size of A3 paper or 12 cm x 29,7 cm.

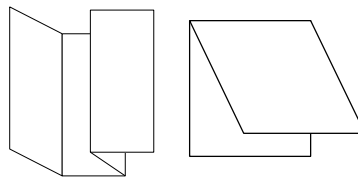


Figure 5. Two parallel fold and Bi-fold technique.  
Source :Ardhianto, et.all (2019)

### 3.1.4. Test

The test stage is the final stage of the design thinking process, but the existence of the test is to get the actual results of the prototype stage. In the design of the Chinatown tourist map design, trials are needed to be carried out to the tour guide, local tourists, and international tourists. Tour guides are asked to see if the location of buildings and spots are correct, and tourists are given a map to explore and interview after completion. The results obtained are a tourist map design that helps tourists find the desired place and tour guides in showing and explaining history and culture locations and landmarks. However, there are some things or spots that are likely to increase shortly. So it needs to be carried out periodically evaluation stages in the Semarang Chinatown tourism area.

## 4. CONCLUSION

Design thinking is a method of thinking to solve problems with a human-centered orientation; the use of design thinking in the design process is well done. The process of design thinking on the Semarang Chinatown tourism map with five stages, it found that the empathy stage of the user was lost and the difficulty of getting information. The Define Phase sees factors that influence the occurrence of a problem, namely gender, age, and experience, as well as the number of places and gangs. The ideate stage uses 3D maps, icons, and flat designs to get closer to the target. At the prototype stage, A3 size full-color printing techniques chosen for comfortable reading and two-parallel and double folding techniques, which made it easier to store as a pocket map. However, at the test stage, there is a need for a time evaluation in the design of tourist maps to be able to accommodate the addition of new spots. Although its design and shape has been used effectively as a representative of the characteristics of Semarang's Chinatown and can help tourists find locations, this tourist map also helps tour guides and the public in explaining the area to tourists. As well as becoming the latest reference on tourism and business spots, it also becomes a bridge in the development of the local economy through tourism.

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