ASSESSING WAYFINDING OF NEWCOMERS IN UNFAMILIAR LARGE-SCALE URBAN PLACES IN MALACCA HERITAGE ZONE

AIDA ESLAMI AFROOZ

ISMAIL SAID
2013
INTRODUCTION

Wayfinding is a behavior (Bechtel and Churchman, 2002) which refers to people’s cognitive and behavioral abilities to find a way from an origin to a destination (Golledge, 1999). Wayfinding cannot be successful unless you know where you are, know your destination and following the best route to your destination, recognizing your destination and finally being able to find your way back (Carpman and Grant 1993). Wayfinding is the ability to move from one place to another in a large-scale environment, a place where wayfinding takes place.

When people can find their way around, they feel oriented and confident, thus their eagerness to explore an area is increased and their general anxieties are lessened (Kaplan et al., 1998). In many cases people are unfamiliar with the environment they are there for the first time and have to find their way. Thus they depend on external information, knowledge in the world. Sometimes they find it difficult to perform wayfinding tasks in an unfamiliar environment because they are not provided with adequate knowledge in the world.
INTRODUCTION

One reason that makes some places feel uncomfortable and others seem pleasant is familiarity. To enhance familiarity one should take first timid steps into unfamiliar territory (Kaplan et al., 1998). Repeating the adventure makes it to be less risky and attract a person to explore farther (Kaplan et al., 1998).
# METHODOLOGY OF STUDY

## Data Collection
- Mind mapping
- Semi-structured interview

## Data Analysis
- Descriptive Statistics

### Stage 1

<table>
<thead>
<tr>
<th>Mind Mapping</th>
<th>Unfamiliar/Newcomers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1</strong></td>
<td><strong>Destination point</strong></td>
</tr>
</tbody>
</table>
| Semi-structured interview | Information on:  
- how they have found the place;  
- Difficulties they had to found the place;  
- Visual cues they had relied on;  
- whether they had tried to make a place familiar for themselves. |
| **Phase 2**           | - Draw the path they have been chosen to reach to Dutch Square  
- Draw the way they choose to go to a marked space |
METHODOLOGY OF STUDY

Respondents

To balance uncontrolled effects in the study, randomization (Piegorsch et al., 2005) of 100 respondents in Melaka city was used in conservation area. The random sample of respondents was achieved through random selection of newcomers. Foreigners or Malay who were visiting the place for the first time were involved as newcomers. Respondents were all adult and required knowing English.
METHODOLOGY OF STUDY

Environmental settings

Even though wayfinding accuracy is always desirable, there are urban places in the heritage zone in which accuracy to a specific destination is also an important consideration. One such place is a public place where a large number of people must efficiently reach there and want to visit other places around it. A public place where selected for this study was Dutch Square. This setting was situated in heritage zone of Malacca city which composed of grid and curvilinear pattern of streets. There was a river known as Malacca River, on the north part of the Dutch Square which surrounded heritage part of the site. Several landmarks situated in the area, along the major road or at the inner part of the site. Major streets inside the site are in grid pattern which encircled the curvilinear alleys.
SITE CONTEXT
STUDY AREA
RESULTS AND DISCUSSION

After assembling mind maps, analysis on mind maps began and data was analyzed by descriptive statistics, Fisher's Exact Test, Chi Square Test and Cramer's V Test. The analysis was made regarding the three physical setting variables: (1) visual cues in relation to spatial landmarks, (2) degree of familiarity, and (3) sense of safety and security. The purposes of analysis were to examine the effect of different visual cues on respondents and to find the relationships between different variables.
VISUAL CUES

Asking other people is a way that most people rely on when they are not familiar with the place and their spatial skills are weak. Otherwise, they will use maps. These devices are being used consciously by respondents.

Maps are the most commonly instruments visitors use to find their way. But individuals find it easier to ask others or use mental maps since they do not need to always bring physical maps.

<table>
<thead>
<tr>
<th>Visual Cues</th>
<th>Visual cues visitors kept in their mind to find their way</th>
<th>Visual cues visitors used to guide others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clock Tower</td>
<td>2%</td>
<td>9%</td>
</tr>
<tr>
<td>Christ Church</td>
<td>21%</td>
<td>-</td>
</tr>
<tr>
<td>Victoria Fountain</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Malacca River</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>St. Paul Hill</td>
<td>2%</td>
<td>-</td>
</tr>
<tr>
<td>Red buildings</td>
<td>25%</td>
<td>53%</td>
</tr>
<tr>
<td>Bridge</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Jonker Walk</td>
<td>15%</td>
<td>12%</td>
</tr>
<tr>
<td>others</td>
<td>20%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Figure 2: How a visitor would find his way if there is not any clock tower or church to help him see from far to find his way.
Difficulties people occurred to perform wayfinding were followed from lack of knowledge around police station, information center and in front of the river. These areas were resembled each other without any landmarks or spatial differences. They were not provided with adequate external information. Indeed, it was resulted from deficiency of visual cues which is related to the physical design of these places.

Figure 4: Places visitor asked for help.
Decision points

Narrow streets were other places people had difficulties to orient. But narrow streets in heritage zone of Melaka city are semi-private places. Their characteristics did not allow strange people to enter these parts and did not want to orient newcomers there. That is the reason why they had lack of open vistas at these alleys.
Newcomers try to make the place familiar for themselves by reminding other places they know (76%). As familiarity in an environment increases performance in their wayfinding increase. European cities (29%), George Town in Penang (19%), Macao (12%) and Abyane in Iran (11%) were the places most of the newcomers recalled when they were at the Dutch Square. It appears that the similarities people see between Dutch Square and the place remind them is mostly due to ancient buildings at this area. Indeed, river played a secondary role in reminding other places. Function of the square as an open space that provides a place for people to gather was another characteristics of Dutch square which respondents recalled.

![Figure 7: What similarity do you see between Dutch Square and that place](image-url)
CONCLUSION

LEGIBILITY

Bentley (1985)

work well in traditional parts of the cities in contrast to modern parts.

LANDMARKS

Xia et al. (2007)

type of landmark used was related to the level of familiarity the tourist had with the site.

having several landmarks in an urban area is not an effective physical design in terms of legibility.

There needs to have a highly influential connections and sequences between landmarks to help newcomers to orient
CONCLUSION

Cognitive Maps

Patterns and direction of the streets highly influenced newcomers' cognitive maps.

Street Pattern

Grid pattern of streets is mostly used by newcomers whereas it might not be the same for residents and locals.

One way streets made newcomers confuse even though newcomers were there as pedestrian.