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The Sign System at the Borobudur Temple: Effectiveness during the Covid-19 Pandemic

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Abstract.

Borobudur Temple built in 750 - 850 AD, is one of Indonesia's main tourist destinations recognized by UNESCO as an international cultural heritage site. The aim of this study is to find out the effectiveness and informative level of the sign system at the Borobudur Temple during the Covid-19 pandemic. During the new normal period, there are sign systems at 34 tourist sites in Borobudur Temple with details 34 tourist sites (100%) have provided a general sign system and only 14 tourist sites (41.17%) provided health protocol sign system. This study used qualitative research with a case study approach. Data were analyzed using descriptive analysis, interpretation, and assessment methods.

The results indicate that the movement of visitors occured in 34 tourist sites of Borobudur Temple with a visitor density level divided into three categories, namely locations with a high-density level of 23.52%, locations with a medium density level of 8.82%, and locations without a density of 67.64%. The provision of a sign system in the Borobudur Temple Tourism Park area was complete and informative, and it was easier for visitors to explore the Temple and its facilities. Besides, the existence of a sign system related to health protocols was quite effective in breaking up the visitor density considering that the limited number of employees was inversely proportional to the total tourists. It is concluded that the sign system helps employees to monitor the tourists so that they did not over-crowd leading to health issues.

Keywords: sign system, environmental graphics, pictograms, Borobudur Temple, tourism

Introduction

The Covid-19 pandemic has caused health problems and has an impact on the global economic crisis (Anderson et al., 2020). To reduce the spread of Covid-19, governments around the world have implemented lockdown policies and prohibited their citizens from visiting countries affected by the Covid-19 (Fotiadis et al., 2021). The Indonesian government has also done the same thing by implementing the policy of Large-Scale Social Restriction (PSBB) in

the community (Utami and Kafabih, 2021). Losses in various sectors are felt by the community as a result of these social restrictions, but the tourism sector is the sector most affected by this pandemic (Škare et al., 2021). The Covid-19 pandemic affected the global tourism industry more than during the SARS pandemic which occurred in 2002 – 2003 (Lee and Chen, 2022). The global tourism industry experienced a decline in total revenue of US$ 2.86 trillion and a loss of almost 50% of total revenue (Abbas et al., 2021). In Indonesia, the number of foreign tourist arrivals has decreased drastically, by 58% - 78% or 847 million to 1,139 million visits throughout 2020 (Kemenparekraf, 2021).

Borobudur Temple is the largest Buddhist temple in the island of Java, used as a place of religious practice as well as an icon of Indonesian tourism (Yatno, 2020). Since being named a world cultural heritage by UNESCO in 1991, Borobudur Temple has become a tourist spot that attracts tourists, both foreign and domestic, so that it is included in the list of ten tourist attractions that generate the most income for Indonesia. (Hasanah et al., 2020). However, things changed after the Covid-19 pandemic. The number of visits to Borobudur Temple has decreased significantly to only 940 thousand tourists. This number is greatly reduced compared to before the Covid-19 pandemic which could reach more than 3 million tourists in a day (Kasatriyanto et al., 2021).

To restore Indonesia's tourism sector, the government has begun to open tourist attractions by implementing standard health protocols that must be met by tourists to prevent the transmission of the desease in tourist attractions (Budayana and Adi, 2021). The management of the Borobudur Temple Tourism Park predicts that the number of post-Covid-19 tourism visitors will not return as before in the near future (Parahiyanti et al., 2022). Therefore, a strategy is needed to restore the number of tourists during the Covid-19 pandemic. This is because tourists will consider visiting only tourist attractions that meet the Covid-19 health protocols compared to tourist attractions that do not provide access to information on the health protocol (Guridno and Guridno, 2020). The way that can be done to return the number of tourists to Borobudur Temple is to develop a creative tourism industry in the new normal era, namely by increasing accessibility and providing infrastructure facilities that support visitor comfort (Muhamad et al., 2021). The comfort of visitors when exploring tourist attractions is influenced by appropriate the layout organization and completeness of facilities (Andreani, Kristanti and Yapola, 2013; Murdowo, Prameswari and Meirissa, 2021). One form of improving infrastructure facilities is by providing a sign system or a pictogram that can be used as a provider of information, directions, and public safety devices at the Borobudur Temple tourist complex (Halimi, 2015).

Sign systems or pictograms are referred to as public information symbols containing figurative and non-verbal signs, figurative images, and illustrations of objects in tourist attractions that aim to provide information about objects or infrastructure in tourist attractions (Fiori, 2014). The design of the sign system is a systematic mapping to meet tourism needs and aims to provide complete information oriented to geography, history, Nature, culture, objects, and existing tourism infrastructure (Onyshchenko et al., 2021). According to Tinarbuko (2012) the design of a sign system must meet four criteria, namely easy to see, easy to read, easy to understand, and being trustworthy. In its design and placement, the sign system must be easily accessible by visitors, easy to read, understandable correctly, and the information is not misleading (Halim et al., 2018).

There is previous research on the design of a sign system in tourist attractions. Zhang et al. (2020) evaluated visitor responses regarding clarity and ease of understanding, as well as the arrangement of the layout of the sign system at Shanghai Disneyland Resort. The results show that visitors are more interested in a sign system that shows complete information on tourist attractions, shows a security system, attractive colors, easy-to-read writing, height of symbols according to standards, and is placed in strategic places. Adilah et al. (2021) produce outputs such as sign directions, tourist maps, and animal safety signage by taking the concept of Nature so as to create a fresh and natural feel. Wirasasmita and Swasty (2020) prposed the concept of a sign system for the Situ Gunung tourist attraction by showing the image and characteristics of the tourist spot. The design of the sign system is carried out more complexly,

starting from identification signs, directional signs, interpretive signs, regulatory and prohibitory signs, placemaking, and pictograms. Meanwhile, Rizqullah and Swasty (2019) innovated by combining the design and use of QR Code-based technology to create a sign system that was directly integrated with the website to be able to facilitate visitors in finding information and directions at Jakarta Old Town tourist attractions. Previous studies only discussed the design and use of the sign system, and in previous studies no one had specifically analyzed the existence of the sign system and its influence in regulating the movement of visitors at tourist attractions. Therefore, the purpose of this study is to find out how effective and informative the sign system at Borobudur Temple was during the Covid-19 pandemic. This research is expected to provide an evaluation to the management of the Borobudur Temple Tourism Park Area in providing an informative and effective sign system for visitors during the Covid-19.

Literature Review

Sign Systems / Environmental Graphic Design

Environmental graphic design is all graphics in the environment, including signs, bulletin boards, and building name boards that function to identify the location of objects written on two or three-dimensional media (Masnuna and Prameswari, 2021). Environmental graphic design in the research conducted by Masnuna and Prameswari (2021) is in the form of environmental graphic design at Sam Poo Kong tourism object, the Semarang City. The use of two-dimensional environmental graphic designs makes it easier to show all parts of the Sam Poo Kong Temple and makes it easier for tourists to find existing facilities in the Sam Poo Kong Temple area, even though it is in a simple form.

Environmental graphic designs not only prioritize color and other supporting elements, but also must be able to provide information properly and correctly, and be easily understood by tourists. Nakplad et al. (2021) in his research on the design of a sign system based on foreign languages (English, Thai, and Mandarin) at Thai Not Temple, Nakhon Si Thammarat Province, Thailand stated that the use of foreign languages in the sign system makes it easier for tourists, especially foreign tourists to understand information and objects: objects in the tourist area of the temple. Generally, foreign language sign systems make it easier to find international tourism objects than national tourism objects. Nakplad et al. (2021) also added that other elements also need to be considered, such as the choice of colors, the selection of durable materials, the level of modernity, and the selection of fonts that are in accordance with religious and cultural identities in line with the characteristics of the tourism.

Font selection or typography, contrast color, and pictogram visualization that are easy to be read by tourists must be considered in designing environmental graphic design. In its development Adzhar and Swasty (2019) had conducted environmental graphic design development that is integrated with website as the information media in Betawi Setu Village, Babakan. It makes the information more informative to assist informing location and facilities obtained in there to the visitors.

Borobudur Temple

Borobudur Temple is a phenomenal historical heritage and a symbol of the greatness of Indonesian culture and history. The majesty of the Temple is difficult to assess because of the high diversity of cultural, aesthetic, artistic, architectural and spiritual values. It was built during the Syailendra Dynasty to glorify Mahayana Buddhism. After briefly disappearing, it was rediscovered in 1814 by Sir Thomas Stanford Raffles, the British Governor General, who ruled Indonesia at that time (Cahyandaru, 2013). As an embodiment of the macrocosm, the temple was built with three successive levels from bottom to top, namely bhurloka (lowest level), bhuwarloka (temple body), and swarloka (highest place). These levels are also in accordance with the concept of tridhatu in Buddhist belief, the philosophical division of levels from bottom to top, including Kamadhatu, Rupadhatu, and Arupadhatu. In addition, stairs were also built on the four sides of the temple (with the main entrance on the East) which made it

easier for Buddhists to perform pradaksina rituals. With its splendor, Borobudur as a cultural and religious center was designated as the largest Buddhist temple in the world still functioning today by the Guinness World Records on October 16, 2012.

Fig. 1: Borobudur Temple Building
Source: Authors

In terms of appearance, Borobudur Temple has narrative and decorative statues and reliefs carved along the walls of the temple building. The total number of statues is 432 pieces, while the total number of reliefs reaches 1,300 pieces. The narrative reliefs generally tell the life of Siddhartha Buddha Gautama and the philosophy of life from birth to human death, which are divided into Mahakarmawibangga Reliefs (which have been covered by the temple's feet), Lalitawistara Reliefs (in the Rupadhatu section), Jataka and Avadana Reliefs, Gandavyuha Reliefs, and the reliefs of Bhadracari. Another uniqueness is that there are several stupas that surround the main stupa to form a mandala. These large stupas are symbolic aspects contained in the Borobudur Temple. With its uniqueness and beauty, Borobudur Temple meets the three criteria of Extraordinary Universal Value, and thus, it was officially named a world heritage site by UNESCO in 1991 (Islam, 2013).

Research Method

This study used qualitative research methods with a case study approach to the object of Borobudur Temple in Magelang Regency, Central Java Province, Indonesia. Borobudur Temple was chosen because it is a center for the development of multi-disciplinary research and is still used as a place of worship for Buddhists. This aim of this study to find out the level of effectiveness and how informative the sign system design that already exists in the Borobudur Temple complex is during the Covid-19 pandemic.

Data collection techniques involved interviews, field observations, documentation of the sign system in the Borobudur Temple Tourism Park area, and examination of literature related to the sign system. Interviews were conducted with 10 visitors to Borobudur Temple in December 2021. Bandur (2019) stated that the more specific the research sample (the more specific the character of the sample, the fewer informants to study), the quality of the interview process (the higher the quality of the discussion in the interview, the smaller the sample size.

There are three data analyzes in this study, namely demographic analysis of the Borobudur Temple, analysis of visitor density, and analysis of the visual sign system. The criteria for the selection of respondents were visitors who had entered the area of the Temple. Questions in the interview were formed to find out responses about physical and cultural conditions at the Borobudur Temple; placement, completeness and design of the sign system and the benefits of the sign system. Data analysis was carried out using descriptive, analysis, interpretation, and assessment methods (Soewardikoen, 2019). The results of the visual analysis were in accordance with Calori and Vanden-Eynden's theory of making sign systems (Calories and Vanden-Eynden, 2015).

Finding and Discussion

Demographic analysis of the Borobudur Temple area

Borobudur Temple is located in Borobudur District, Magelang Regency, Central Java Province, Indonesia (Cahyandaru, 2013). From an architectural point of view, the shape of Borobudur Temple resembles a square terraced pyramid. Borobudur Temple was built with a length of 121.66 meters, a width of 121.38 meters and a height of 35.40 meters (Cahyandaru, 2013). The structure of Borobudur Temple consists of 10 terraced terraces, 6 square terraces, and 4 round terraces (including the main stupa) (Islam, 2013). Borobudur Temple was built in the Mandala style, reflecting the universe of Buddhist beliefs, divided into three levels from bottom to top, namely *Kamadhatu*, *Rupadhatu*, and *Arupadhatu*. The structure of the temple building is square with the main entrance on the east as the starting point for the *pradaksina* ritual (the ritual around the Borobudur Temple in a clockwise direction) (Cahyandaru, 2013). Almost the entire Borobudur Temple building is decorated with statues and reliefs that tell the life of the Buddha (Sebastian et al., 2021), the flora and fauna that lived and were used by the people during the Ancient Mataram period (Febrianto and Idris, 2016), as well as messages of life for the mankind from birth to death (RNF Utami et al., 2020).

After being named an international cultural heritage site, many tourists visit Borobudur. Borobudur Temple is located in the southern part of the Borobudur Museum. The Borobudur Museum was originally named the Karmawibhangga Museum, taken from one of the reliefs of the Borobudur Temple. In addition to facilitating visitors with information related to history, architecture, religion, philosophy, and other aspects of knowledge about Borobudur, it is also used as a repository for archaeological sites in the Borobudur Temple Area. Several statues damaged by the Yogyakarta earthquake in 2006 are still neatly stored in this museum. Not far from the Borobudur Museum, there is the Samudraraksa Ship Museum which stores historical objects and video documentation of the Samudra Raksa Ship expedition. The Samudraraksa Museum building model is not much different from the Borobudur Museum building model. These two museums are also visited by quite a lot of tourists, because of their strategic location located in the direction of the exit. Another museum located near Borobudur Temple is the Unique Gallery and Art of Borobudur Indonesia (GUSBI) or better known as the MURI Museum. The shape of the GUSBI building looks more different than the other two museums. Shaped like a Joglo house, in the GUSBI entrance area there are two black and white horse statues (jaran). The inside of the GUSBI mostly stores a collection of antiques, paintings, and also miniature Buddha statues. Because it is located quite far from Borobudur Temple, this museum is rarely visited by tourists.

Analysis of the Density and Movement of Borobudur Visitors

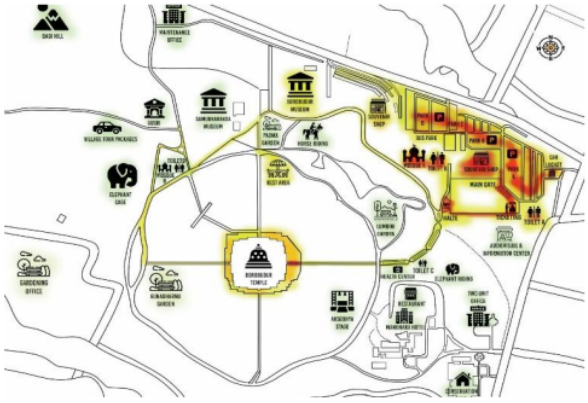

Fig. 2: Map of Borobudur Temple area
Source: Authors

Dealing with Figure 2 above, the number of facilities in the Borobudur Temple Tourism Park area consists of 34 facilities. Then from Figure 2 it can be seen that there are differences in the color of each facility. The red symbol indicates the presence of high-intensity visitor density, the yellow symbol indicates the presence of visitor density but is still in the moderate category, and the faded green color indicates the absence of density at that location.

The high level of visitor density can be seen at the location of the parking counter, parking lot (parking A, B, C, and D), the main entrance (main gate), ticket counter, prayer room A, souvenir shop in front, rest area, and the outside of the temple. Borobudur. Meanwhile, the medium density level was found in toilet A, the location of the bus stop, and the Borobudur Museum. Meanwhile, location points with low density even tend not to be overcrowded, found in toilets (toilets B, C, D), prayer rooms B, audiovisual and information center buildings, health posts, elephant riding areas, two office units, restaurants, Manohara hotels, Conservation Center, Aksobhya stage, Lumbini Park, horse riding area, Padma Park, Gunadarma Park, Samudraraksa Museum, maintenance office, GUSBI Museum, elephant enclosure, tourist village area, and Dagi Hill.

Facility Name		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH
Sign System	General Sign System	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
	Sign System of Health Protocol			V	V	V	V	V	V	V		V	V		V		V	V	V											V					
Visitor Density	Dense	V	V					V	V			V		V											V		V								
	Medium			V						V														V											
	Not Dense				V	V	V				V		V		V	V	V	V	V	V	V	V	V			V		V	V	V	V	V	V	V	V

Location Description:

A = Car Locket
B = Parking
C = Toilet A
D = Toilet B
E = Toilet C
F = Toilet D
G = Main Gate
H = Ticketing
I = Halte
J = Audiovisual dan Information Center
K = Mosque A
L = Mosque B
M = Souvenir Shop
N = Health Center
O = Elephant Riding
P = Two Unit Office
Q = Restaurant
R = Manohara Hotel
S = Conservation Unit
T = Aksobhya Stage
U = Lumbini Garden
V = Horse Riding
W = Borobudur Museum
X = Rest Area
Y = Padma Garden
Z = Borobudur Temple
AA = Gunadarma Temple
BB = Samudraraksa Museum
CC = Maintenance Office
DD = Gusbi
EE = Elephant Cage
FF = Village Tour Packages
GG = Dagi Hill
HH = Gardening Office

Fig. 3: Availability of the sign system and the density of visitors to Borobudur Temple
Source: Authors

As shown in the Fig. 3, there are 34 facilities in the Borobudur Temple area that can be visited by tourists. The density of visitors is divided into three categories, namely locations with a high density - 8 areas (23.52%), locations with a medium density - 3 areas (8.82%), and locations with a low density - 23 areas (67.64). %). Fig. 3 also shows a sign system that has been provided by the manager of the Borobudur Temple Tourism Park Area. The sign system is divided into two categories, namely the general sign system (not related to Covid-19) and the health protocol sign system. The number of general sign systems in the Borobudur Temple area is complete and evenly distributed in 34 locations (100%), while the number of health protocol sign systems is only spread over 14 locations (41.17%) in the Borobudur Temple Tourism Park area.

If it is seen in Fig. 3, the health protocol sign system is placed at the location of toilets (A, B, C, D), the main gate, ticketing, bus stops, prayer rooms A and B, health service post, two office units, the restaurant, the Manohara Hotel, and the maintenance office. If seen from the Fig. 3, the management of the Borobudur Temple Tourism Park area has not provided a comprehensive health protocol sign system at location points that experience high visitor densities. There are at least five location points in Borobudur that are not given a health protocol sign system. These locations include car lockets, parking, souvenir shops, rest areas, and the area outside the Borobudur Temple. The car locket area was intentionally not given a sign for

the health protocol system because generally in that area, the majority of visitors are still in the vehicle, Therefore, the transmission rate of Covid-19 is relatively low. Then, the second area that was not given a sign for the health protocol system even though it was crowded with visitors was the parking lot. The reason why the manager did not provide a health protocol sign system in the parking area is due to the area being quite large. The visitors can spread out to avoid crowds.

The third area that experienced a high density but was not given a health protocol system sign was the souvenir shop. There are two souvenir shops near the entrance and near the exit. The souvenir shops not only sells souvenirs, but also sell various foods and drinks, as well as souvenirs typical of Borobudur and Central Java. The souvenir shop area at the entrance experiences a high density because generally, the visitors will take a break and buy food or drinks before entering the Borobudur Temple area. As for the souvenir shop near the exit, it is generally crowded with tourists who want to buy souvenirs and especially souvenirs typical of Borobudur before returning to their respective homes. With a high density, the souvenir shop area should have a sign system for a health protocol appeal. The reason for not being given a health protocol sign system in the souvenir shop area is due to the presence of a souvenir shop that is outside and the size of the area. The manager of the Borobudur Temple Tourism Park area thinks that the rate of transmission of Covid-19 in that location is low and a health protocol system is also not necessarily effective because of the density of shops in the souvenir shop location. Instead, the management of the Borobudur Temple applies an odd-even system to sellers to reduce the rate of transmission of Covid-19.

The fourth area that is not assigned a health protocol system is the rest area. The reason is that the location carries an outdoor theme and is located in a large enough area. The visitors are not centered in one corner. By being in an outdoor environment, the rate of transmission of Covid-19 can be minimized. The last area not given a sign system is the area outside the Borobudur Temple. The cause of overcrowding in the area outside the Borobudur Temple is that the management forbids tourists from entering the Borobudur Temple. This is done so that there are no crowds and prevent the transmission of Covid-19 in the Borobudur area. However, instead of preventing crowds on the inside of the temple, crowds of visitors gather outside the temple. The absence of a health protocol sign system is due to the location being in an outdoor room and the management thinks that if the Borobudur Temple is not opened, then visitors can still enjoy the beauty of the Temple from various angles and tourists can still visit other places scattered around the Temple area.

The Borobudur Temple Area Manager also provides a sign system at location points that do not experience visitor density on the grounds that the area is often visited by tourists but there are no crowds because visitors do not come together. These are areas such as toilets. Then, at the restaurant location, a health protocol system sign is given even though the area is not crowded because the area will be visited by tourists only at certain times; for example during lunch time. In addition, the provision of a health protocol sign system at the restaurant locations is aimed at preventing Covid-19 as well as maintaining food and place hygiene so that there are no germs that endanger the health of visitors. The provision of a health protocol sign system in the Manohara Hotel area and unit offices is to prevent hotel workers and visitors from transmitting Covid-19. In contrast to the location in the densely-visited area of the Temple, which is in an outdoor room, Manohara Hotel and office units are buildings located in indoor rooms where Covid-19 will easily spread if they are in an air-conditioned and closed room. Therefore, the management hopes that hotel visitors and workers can apply health protocols in accordance with applicable operational standards. Meanwhile, the provision of a health protocol sign system at the location of the health service post aims to inform visitors to continue implementing health protocols because the health post is in an indoor room and temporary residence for visitors who are sick. With such circumstances, the manager tries to reduce contamination of visitors with sources of disease that may be transmitted from patients at the health post.

Analysis of the Sign System in Borobudur

Related to the information content, the sign system at the Borobudur Temple is grouped into five categories which are described in the following sub-chapters:

Directional Sign

Directional sign has a function as a signpost that provides information related to place navigation (Rizqullah and Swasty, 2019). This type of marker is generally in the form of arrows or uses specific words to indicate direction, such as left, right, straight, or reverse direction (Wijayanti, 2019). This sign is generally placed outdoors and in crowded places such as around parking lots, entrances, counters, as well as access roads for visitors to the Borobudur Temple Area. This is intended so that visitors are not confused about getting lost when looking for a way to the Temple and other facilities such as toilets, museums, prayer rooms, parking lots, bus stops, hotels, and restaurants. In its application, the Borobudur Temple Tourism Park uses two types of media to show directional signs, namely signs made on board media and signs made on floor media. For the installation of the sign on the media board, it uses the free-standing technique with the bottom of the pole stuck to the floor. Poles and sign boards can be transported and moved as needed. The writing on the sign panel uses durable iron paint and stickers have been laminated.

Fig. 4: Directional sign to the temple
Source: Authors

Fig. 5: Directional Sign on the temple entrance
Source: Authors

In Fig. 4, the design elements used are dark green as the base color. Writing indicates the direction of the temple using Indonesian and English languages. White arrow symbols indicate the direction to the temple, and Padma flower ornaments exist on each corner of the board. In Fig. 5, the design elements used are not much different from the design elements in Fig. 5, which consists of a green color at the base of the board and an arrow symbol pointing towards the entrance. The square shape on the outside of the arrow is yellow, and the use of Indonesian and English languages is distinguished by color (white for Indonesian and yellow for English). The use of green at the base of the directional sign board aims to give a natural impression. Wirasasmita and Swasty (2020) explain that the use of green will give refreshing, calming, and soothing properties. Syarif (2018) also states that in Javanese culture, green is associated as a symbol of Nature, life expectancy, and gives a message to always live side by side with Nature. The yellow color in the text and the square in Fig. 5 symbolizes majesty.

This analysis is in accordance with the philosophy in Syarif (2018) on the meaning of color in Javanese culture: yellow means nobility, divinity, prosperity, and peace. While the white color indicates purity. This is in accordance with the meaning of color in the semiotic study conducted by Zuhriah (2018); white means safe, pure, and clean. The combination of green with yellow or white also has contrast to make it easy for visitors to read and find. The language used in the sign system is to use two languages (Indonesian and English) to be easily understood by foreign tourists.

According to Nakplad et al. (2021) a sign system that uses two languages is easier for foreign tourists to understand. Arrow symbols are generally placed on the right side by adjusting the typography. The placement of this symbol is in accordance with Calori Theory which states that the placement of arrows on a directional sign using a media board is placed side by side in accordance with the typography (Calori and Vanden-Eynden, 2015). In addition, the presence of Padma flower carvings in every corner of the signboard gives a beautiful and decorative impression. According to Paramadhyaksa (2016), the Padma flower is a sacred flower of Buddhists, which is used as a symbol of the conception of a sacred building and the eight cardinal directions.

Besides, it is placed on the panel. A directional sign is also created by making a mark on the ground or floor, such as at the entrance to the counter.

Fig. 6: Directional sign of counter
Source: Authors

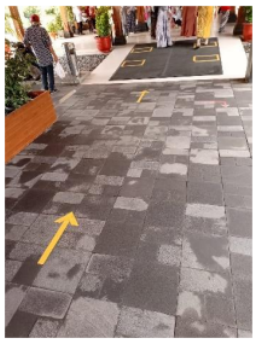

Fig. 7: Directional sign at the ticket counter entrance door
Source: Authors

The design elements in the directional sign on the ground media are shown in Fig. 6, where the design elements used are foreign language writing, yellow straight arrows, and red circles. The words "IN" indicates the location information for the ticket counter. While in Fig. 7, the symbols used are only straight arrows. The straight arrow symbol shows the direction of the counter location where visitors who want to go to the ticket booth can walk straight following the arrow. The position of the arrow on the directional sign using soil media is placed above the writing (in Fig. 6) to make it easier for the visitors to read. In addition, according to the Calori Theory, for symbols and writings written on soil media, it is better to place them on top of writing so that they pile up on top of typography (stacked positioning) (Calori and Vanden-Eynden, 2015). The yellow color in the writing and arrows is used to contrast with the floor and can be seen by visitors. The use of bright colors is intended to assist in conveying information (Berger, 2005). Meanwhile, the red circle on the sign aims to prevent visitors from stopping at the entrance of the counter. According to Arthur and Zlamalik (2005), the red circle symbol has the meaning that regulations or regulations are prohibited from stopping at that place.

Regulatory Sign

Regulatory sign is a sign that serves to provide information about prohibitions and advice regarding things to do and avoid while in tourist areas (Adzhar and Swasty, 2019). This sign is placed in a location crowded with visitors with the aim that visitors can easily find out the regulations in the Borobudur area. In its application, there are two kinds of regulatory signs, namely regulatory signs that are installed outside the room with a media board and regulatory signs that are written on the floor. Regulatory signs are mounted on the board using the sleeve ground mounted technique (planted in the ground with one support pole) and freestanding on two poles.

Fig. 8: Prohibiting sign of stepping on grass
Source: Authors

Fig. 9: Signs of COVID-19 health protocol
Source: Authors

In Fig. 8, there is a sign prohibiting from stepping on the grass with design elements indicating a prohibition in Indonesian and English languages. The basic color of the board is green with the installation of support poles using the sleeve ground mounted technique (planted in the ground). While in Fig. 9, there are Covid-19 health protocol regulations that must be obeyed by visitors. This sign is placed at the front of the entrance so that it can be read and understood by visitors who will enter the Borobudur area. Yellow is used as the dominant base color because the use of bright colors is intended to help tourists understand the information provided. In addition, according to Berger (2005), yellow is also used as a symbol of appeal. The sign installation technique uses freestanding with two supporting poles. Meanwhile, the regulatory sign made on the floor uses yellow or white to make it easy for the visitors to see.

Generally, the regulatory and prohibition signs on this land are intended as an appeal to visitors to keep their distance. The yellow color on the sign is used as a symbol of appeal to visitors to comply with existing regulations (Berger, 2005). The square geometric shape of the sign is in accordance with Arthur and Zlamalik (2005) which has a meaning as general information addressed to visitors. In Fig. 10, the symbol of people who are far apart shows that visitors can maintain a distance which is reinforced by an appeal to use Indonesian and English. Meanwhile, in Fig. 11, there is a queue limit writing which means that visitors cannot cross the queue line and continue to queue according to the available boxes.

Fig. 10: Signs to keep your distance
Source: Authors

Fig. 11: Signs to keep your distance in line
Source: Authors

Regulatory signs at the Borobudur Temple can also be found at the entrance to the Borobudur Temple. If the sensor on the machine at the entrance is in the form of a red cross (in Fig. 12), it means that visitors are prohibited from entering. In addition, the traffic prohibition sign in Fig. 13 is also found at several points in the Borobudur Temple area. This sign indicates that there are a lot of pedestrians in the area. Thus, if there are other vehicles passing by, you must be careful. This sign is made of iron material and is installed with a single-posted ground mounted technique. The signs are installed according to the Calori theory, which is above the head (overhead zone) so that it is easy to read and understand, especially for passing motorists or pedestrians (Wirasasmita and Swasty, 2020). Signs on regulatory and prohibition signs only use pictograms, according to the Calori theory (Calori and Vanden-Eynden, 2015). The primary information in the outdoor sign is limited, but is still communicative (Wirasasmita and Swasty, 2020).

Fig. 12: No entry sign
Source: Authors

Fig. 13: Pedestrian traffic prohibition sign
Source: Authors

Orientation Sign

Orientation sign is a sign that serves to provide an overview and navigation of the entire area in a place (Adzhar and Swasty, 2019). The orientation sign as navigation is displayed through the location plan of the Borobudur Temple Tourism Park to provide information about the place. The orientation sign is made to make it easier for visitors who want to explore the Borobudur Temple Tourism Park Area. The sign is placed in crowded places such as at the entrance to the Temple. The orientation sign is in the form of a landscape with a freestanding type, in its application a freestanding installation technique is used. In Fig. 14, the green color at the base of the board has the characteristics of peace, beauty, coolness, as well as a marker of information (Masrafi and Arif, 2021). The green color is combined with yellow and other colors which aim to provide contrast so that visitors can easily read the contents of the floor plan. Orientation signs contain detailed information and are intended to be read at close range on the spot, so the font size displayed is not as large as signs in general. Rizqullah and Swasty (2019) stated that the location map layout uses a typeface and font size that is easy to read at close range.

Fig. 14: Orientation sign (map) of the Borobudur Temple area
Source: Authors

Interpretive Sign

Interpretive signs contain information that helps visitors to understand information around tourist attractions related to history, geography, artifacts, culture, and so on (Taufiq and Wulandari, 2016). This sign is placed right around historical buildings of the Borobudur Temple Tourism Park area and inside the museum. The interpretive sign that is outside is in the form of a landscape using the Ground Mounted technique. The information, symbols, photos and writings on the signboard use the Print on Material technique. While in the indoor part of the museum, generally wood is used as a support pole and glass to protect the inside of the image. Fig. 15 shows the interpretive sign in the form of information about the story behind the Karmawibhangga relief in the form of Karma and rebirth. A white base is used to contrast the black text. According to research (Fiki, 2011), white is used as the basic color for all symbols. While in Fig. 16 is a sign that informs visitors about the position and direction of each statue. The basic color uses brown and is combined with black and white writing to contrast with the base color.

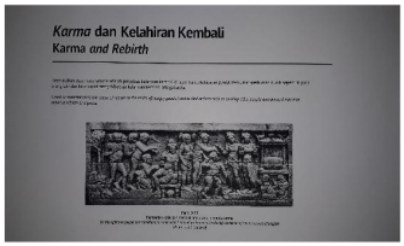

Fig. 15: Interpretive sign relief
Source: Authors

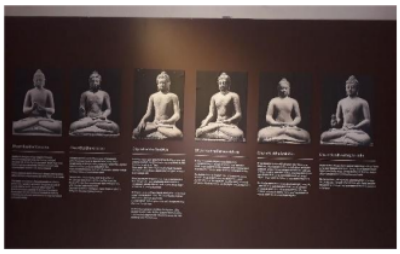

Fig. 16: Interpretive sign statue
Source: Authors

The color of the interpretive sign is generally brown. Dark brown is a neutral color that gives the impression of security, confidence, and gives the impression of elegance and grace. The meaning of brown was revealed by Halim et. al (2018); the brown color is more traditional, and is suitable for communicating the artistic and cultural values of the tourist spot. Ernawati (2019) also mentions that visually, the brown color on the sign seems authentic and contains a thick historical element. The dark brown color contains natural elements as the embodiment of soil, wood, and stone in Indonesia.

Identification Sign

Identification sign serves as a provider of information to identify and indicate a place or building in a tourist location so that visitors can recognize the place or building (Hanifunisa and Swasty, 2020). The identification sign at Borobudur is placed right at the location in question, such as toilets, prayer rooms, health centers, luggage storage areas, information center offices, and the parking lots to parks around the Borobudur Temple Tourism Park Area. This identification sign is in the form of a landscape with installation using a wall mounted technique (attached to a wall or vertical plane). The sign panel uses a laminated cutting sticker to make it durable.

Fig. 17: Identification sign health care
Source: Authors

Fig. 18: Identification sign place of storage of goods
Source: Authors

Fig. 17 shows a green health service post information board as a marker of information and combined with yellow so that the writing looks contrasting. At each corner, there are carvings in the form of Padma flowers which add to the beautiful impressions. Apart from giving the impression of beauty, the Padma flower according to Paramadhyaksa (2016) is also a sacred flower for the Buddhists, which is used as a symbol of the conception of a sacred building and the eight cardinal directions. While in Fig. 18, there is a sign related to the place of storage of goods. Like other signs, the basic color of this identification sign is green with white writing in Indonesian and yellow writing for English and Javanese script. According to Nakplad et al. (2021), a sign system that uses two languages is easier for foreign tourists to understand. Javanese script writing is also used to preserve Javanese cultural identity, according to Fakhruddin et. al (2019) who point out that efforts to preserve Javanese script can be done through writing a nameplate. On the right side of the board, there are symbols of drinks, fruit, bags, and wallets which mean various kinds of equipment or items owned by the visitors. The placement of symbols on the right is in accordance with the Calori Theory, where the placement of symbols is adjusted to the typography (Calori and Vanden-Eynden, 2015).

In addition, there is an identification sign written on the ground using yellow paint. Thus, it can be easily seen by visitors, as shown in Fig. 19 in the form of a sign indicating where to park an ambulance in front of the health service post. Then, in Fig. 20, there is another identification sign made on the ground. This sign can be found in a special area for selfies with the background of Borobudur writing. In this sign, there is a camera symbol contained in a yellow square which is a foothold that must be occupied by visitors so that the resulting image looks good. In addition, there is a trapezoid-like line that extends across the legs indicating that the space is required for shooting.

Fig. 19. Sign of the ambulance parking
Source: Authors

Fig. 20: Sign of the place for taking photo
Source: Authors

Yellow is used as the dominant base color. The bright colors is intended to help tourists notice the information provided (Berger, 2005). The camera pictograms used in the selfie sign also match the criteria for a good pictogram, which is universally understood, free from educational standards, international, and unambiguous (Rustan, 2008).

Discussion

The existence of a sign system in tourist attractions is very important in providing information about the tourist attractions in question as well as a signpost that aims so that tourists who visit do not get lost. Hanifunisa and Swasty (2020) explain that the sign system has a big role in improving the quality of the tourism experience. Especially during the Covid-19 pandemic, the sign system provided must be informative and effective in conveying health protocol information that must be carried out by visitors to the Borobudur Temple Tourism Park Area. The results of the analysis show that visitors enjoy visiting the Temple for the following reasons, namely:

1) Borobudur Temple is a unique and antique international tourist spot;
2) There are many tourist facilities provided by the manager other than the main building of Borobudur Temple;
3) There is a complete sign system to make it easier for visitors when visiting tourist objects in the Borobudur area. Although during the Covid-19 pandemic, visitors were prohibited from visiting the inside of theTemple, visitors could still enjoy the Temple from the outside.

The density of visitors is divided into three categories, namely high density, medium density, and no density. The high level of visitor density can trigger crowds that are feared to spread Covid-19. As can be seen in Fig. 22, where a sign system has been provided for the selfie area, in the vicinity of the location, there is no sign system for health protocols. Although the sign system marking the photo area is good for managing the queue of visitors who will take pictures, at this location, it can backfire for visitors because crowds that occur while waiting in line can increase the chances of the spread of Covid-19. Therefore, it is necessary to add a health protocol sign system that aims to reduce the crowds at these locations. This is in accordance with Wirasasmita and Swasty (2020) who state that the addition of an integrated sign system placement quantity is effective in delivering information and minimizing the number of stray visitors. Kamal et. al (2010) point out that tourism managers should pay more attention to location points that are densely packed with visitors to improve connectivity between locations by increasing the number of sizes and signs pointing to the main locations.

The analysis shows that the general sign system and the health protocol sign system still provide benefits and are quite informative for tourists. However, there are weaknesses related to these two types, as seen in the sign system in Fig. 13 where the sign system calls for keeping a small distance at the ticket counter. If the number of visitors queuing is more than

usual, it will create a crowd and the intensity of keeping a distance will decrease. Then in Fig. 11, you can see a banner showing the Covid-19 health protocol regulations that must be applied by tourists before entering the Borobudur Temple Tourism Park Area.

The weakness of the sign system in Fig. 11 is the poor color selection, which is a combination of yellow base color with non-contrast white writing. The text and images on the banner are small and they can't be seen from afar. Therefore, it is necessary to update the Covid-19 health protocol banner so that it can be effective and informative according to a study conducted by Adzhar and Swasty (2019), which includes the preparation of an appropriate layout so that the message conveyed looks neat. The use of easy-to-read typography, selection of contrasting colors, easy-to-understand pictograms, and highly durable materials are preferred. Meanwhile, the sign system in general is effective, but there are some locations that have not been effective regarding health protocols. For example, the location of a souvenir shop is still not effective in implementing health protocols, so it is necessary to add a sign system for health protocols and related field officers at these locations to ensure that visitors apply health protocols strictly.

In this research, there were two functions of sign system namely first, sign system that is in general containing message or information about facilities existed in tourism places. This general sign system is more static or not easily changed. The change is done if there is addition of facility in public place, but it usually last for a long period of time. Second, sign system that is design specifically for delivering message or information of health protocol during Covid-19 Pandemic which functions as complimentary of the sign system in general. This sign system is designed particularly in line with the need during pandemic and it could be dynamic or changed adjusting to the policy related to public space limitation. Sign system of health protocol is designed by considering the regulation from Government Covid Task Force either local or central. The enforcement of health protocol sign system is in line if number of Covid-19 patients is at high position. In the contrary if the patients number is controlled and decreased then it is highly possible that there could be adjustment to the sign system design in accordance to the government policy. The integration of general sign system and health protocol sign system make the community capable of enjoying their visit to tourism places protected, healthy, and could arise their awareness to obey health protocol in public space.

Conclusion

Borobudur Temple is a historic building and it is located in Magelang Regency, Central Java Province, Indonesia. Borobudur Temple is used as a place for multi-disciplinary learning, and is still used as a place of pilgrimage and Buddhist rituals. The existence of this temple is surrounded by a variety of facilities that support tourists to enjoy the beauty of international cultural heritage as well as add insight to tourists in studying the history and culture of Borobudur Temple. The movement of visitors occurred at 34 tourist sites of Borobudur Temple with the density of visitors categorized into three, namely high density, medium density, and no density. To reduce congestion, the manager of the Borobudur Temple Tourism Park area has provided a sign system that helps employees to monitor tourists so they don't crowd. The existing sign system is then divided into two, namely the general sign system which (not related to Covid-19) is 100% of the 34 facilities at Borobudur Temple. Meanwhile, there are only 14 (41.17%) facilities that provide a health protocol sign system. The results of the study indicate that in general the sign system provided by the management of the Borobudur Temple Tourism Park is informative and the health protocol sign system is quite effective, but it is necessary to evaluate or improve the sign system, especially at the beginning of visitor entry.

References

Abbas, J., Mubeen, R., Iorember, P. T., Raza, S., & Mamirkulova, G. (2021) Exploring the impact of COVID-19 on tourism: transformational potential and implications for a

sustainable recovery of the travel and leisure industry, *Current Research in Behavioral Sciences*, *2*(100033), pp. 1–11, https://doi.org/10.1016/j.crbeha.2021.100033.

Adilah, N., Rohmah, L., Prasetyo, D., & Noordyanto, N. (2021) Signage Design on Exotic Tourism Area of Mengaru in Gresik Regency. *IDEA: Journal of Design*, *20*(1), pp. 16–21.

Adzhar, R. and Swasty, W. (2019) 'Perancangan Sign System Yang Terintegrasi Website Sebagai Media Informasi', Jurnal Bahasa Rupa, 3(1), pp. 31–41. doi: 10.31598/bahasarupa.v3i1.422.

Anderson, R. M., Heesterbeek, H., Klinkenberg, D., & Hollingsworth, T. D (2020) How will country-based mitigation measures influence the course of the COVID-19 epidemic? *The Lancet*, *395*(10228), pp. 931–934, https://doi.org/10.1016/S0140-6736(20)30567-5,

Andreani, F., Kristianti, M. and Yapola, A. (2013) Pengaruh Store Layout, Interior Display, Human Variable Terhadap Customer Shopping Orientation Di Restoran Dewandaru Surabaya, *Jurnal Manajemen dan Kewirausahaan*, 15(1), pp. 65–73, doi: 10.9744/jmk.15.1.65-74

Arthur, P., & Zlamalik, B. (2005) *Wayfinding: Pictografic System Nonverbal Universal*. Canada: Page One,

Bandur, A. (2019) *Qualitative Research : Multi-Discipline Study With NVivo 12 Plus*. Bogor: Publisher Mitra Wacana Media,

Berger, C. M. (2005) *Wayfinding: Designing and Implementing Graphic Navigational Systems*. Switzerland: Roto Vision SA,

Budayana, I. M., & Adi, N. R. (2021) Prospect for Ecotourism Sector in Wanagiri Village During The New Normal Era, *International Journal of Economics, Bussiness and Accounting Research (IJEBAR)*, *5*(3), pp. 859–872,

Cahyandaru, N. (2013) Cultural Heritage of Borobudur Temple As Educational Laboratory, *Agastya: Journal of History and Its Learning*, *3*(02), pp. 4–20, https://doi.org/10.25273/ajsp.v3i02.1462,

Calori, C., & Vanden-Eynden, D. (2015) *Signage and Wayfinding Design: A Complete Guide to Creating Environmental Graphic Design Systems, 2nd Edition* (2nd ed.). John Wiley & Sons. Available at: https://onlinelibrary.wiley.com/doi/book/10.1002/9781119174615

Ernawati, E. (2019) Sign Analysis on The Work of Visual Communication Design, *DESKOVI : Art and Design Journal*, *2*(1), pp. 27–34, https://doi.org/10.51804/deskovi.v2i1.381,

Febrianto, R., & Idris, M. (2016) The History of Fauna Relief on Borobudur Temple, *Kalpataru*, *2*(2), pp. 44–56, https://doi.org/http://dx.doi.org/10.31851/kalpataru.v2i2.1596,

Fiki, A. (2011) *Sign System Design of Taru Jurug Animal Park*. Undergraduate Thesis. University of Sebelas Maret Surakarta,

Fiori, S. R. (2014) Public Information Symbols in Tourism : importance , challenges , dimensions and empirical research about pictograms, Public Information symbols in Tourism : Importance , challenges , dimensions and empirical research Símbolos de Informação Pública no Tu, *Brazilian Journal of Cartography*, *66*(7), pp. 1567–1586,

Fotiadis, A., Polyzos, S., & Huan, T. T. C. (2021) The good, the bad and the ugly on COVID-19 tourism recovery, *Annals of Tourism Research*, *87*, pp. 103117, https://doi.org/doi: 10.1016/j.annals.2020.103117,

Guridno, E., & Guridno, A. (2020) Covid-19 Impact: Indonesia Tourism in New Normal Era, *International Journal of Management and Humanities*, *4*(11), pp. 31–34, https://doi.org/10.35940/ijmh.k1049.0741120,

Halim, L., H, A. D., & M, B. D. A. (2018) Design of Visual Identity and Sign System of Ladaya Tenggarong Tourism Object. *Jurnal DKV Adiwarna*, *1*(12), pp. 1–10,

Halimi, A. N. (2015) Sign System Design of Besuki Tourism Site Kediri. *Journal of Fine Art Education*, *3*(2), pp. 95–100,

Hanifunisa, A., & Swasty, W. (2020) Informative and Interactive Signage on The Heritage Palace of Surakarta City Central Java, *Journal of Fine Language*, *3*(2), pp. 95–103, https://doi.org/10.31598/bahasarupa.v3i2.452,

Hasanah, N. A. I., Maryetnowati, D., Edelweis, F. N., Indriyani, F., & Nugrahayu, Q. (2020) The climate comfort assessment for tourism purposes in Borobudur Temple Indonesia, *Heliyon*, *6*(12), pp. 5828, https://doi.org/10.1016/j.heliyon.2020.e05828,

Islam, M. A. (2013) The Role of Borobudur Brand in Tourism and World Heritage, *Dewa Ruci*, *8*(3), pp. 377–392,

Kasatriyanto, B., Wibowo, A. A., & Mat Nashir, R. B. (2021) Video podcast as alternative education media of Borobudur temple campaign during pandemic COVID-19. *International Journal of Communication and Society*, *3*(2), pp. 130–139, Available at: http://pubs2.ascee.org/index.php/IJCSIJCS@ascee.org,

Kemenparekraf. (2021) *Trend of Tourism 2021*. Jakarta: Ministry of Tourism and Creative Economy Republic of Indonesia.

Lee, C. C., & Chen, M. P. (2022) The impact of COVID-19 on the travel and leisure industry returns: Some international evidence. *Tourism Economics*, *28*(2), pp. 451–472, https://doi.org/10.1177/1354816620971981.

Masnuna, & Prameswari, N. S. (2021) Environmental Graphic Design of Sam Poo Kong Temple : How Effective and Impact on Visitors ? *International Journal of Arts and Social Science*, *4*(3), pp. 45–53.

Masrafi, & Arif, S. (2021) Redesigning Environmental Graphic Design of Pari Temple Sign System. *Journal of Computer Science and Visual Communication Design*, *6*(1), pp. 50–59.

Muhamad, Ruslanjari, D., & Hanif, A. (2021) Creative Tourism in The Era of New Normality in The Advancement of Culture, *E-Journal of Tourism*, *8*(1), pp. 125–132, https://doi.org/10.24922/eot.v8i1.71453.

Murdowo, D., Prameswari, N. S. and Meirissa, A. S. (2021) (2021) 'Engaging the Yin-Yang Concept to Produce Comfort and Spatial Experience: An Interior Design for a Chinese Restaurant in Indonesia', *ISVS E-journal*, 8(2), pp. 60–71.

Nakplad, R., Mittajan, A., & Innarong, T. (2021) Needs Analysis and Development of English-Language Tourist Guide Signs at That Noi Temple in Nakhon Si Thammarat, *Journal of Liberal Arts, Prince of Songkla University*, *13*(2), pp. 170–194.

Onyshchenko, M., Ostroukh, V., Lepetiuk, V., & Pidlisetska, I. (2021) Creation of Tourist Maps Series as a Type of Regional System Tourism Mapping, *Cartographic Journal*, 1–14, https://doi.org/10.1080/00087041.2021.1937827.

Parahiyanti, C. R., Wahyudi, H. D., & Darma, N. R. (2022) Optimizing Planning of CHSE and Tourism Awareness Group (Pokdarwis) as Mitigation Strategy of Tourism Industry During Covid-19 Pandemic in Trowulan Site of Mojokerto, *Jurnal Abdi Masyarakat Indonesia*, *2*(1), pp. 305–310, https://doi.org/10.54082/jamsi.226.

Paramadhyaksa, I. N. W. (2016) Philosophy and Application of Padma Flower Conception in The Manifestation of Bali Traditional Architecture, *Langkau Betang: Journal of Architecture*, *3*(1), pp. 28–42, https://doi.org/10.26418/lantang.v3i1.16720.

Rizqullah, M. F., & Swasty, W. (2019) Information Media Design of Old Town North Jakarta Through Sign System Integrated With Website, *ANDHARUPA: Journal of Visual Communication Design and Multimedia*, *5*(02), pp. 210–225, https://doi.org/10.33633/andharupa.v5i2.1957.

Rustan, S. (2008). *Layout, Basic, and Its Application*. Jakarta: PT Gramedia Pustaka Utama.

Sebastian, W., S, L. A., & Yuniyanto, T. (2021) Relief Story of Lalitavistra As Learning Source of Ancient Indonesia History, *Journal of Temple*, *21*(1), pp. 69–82.

Škare, M., Soriano, D. R., & Porada-Rochoń, M. (2021) Impact of COVID-19 on the travel and tourism industry, *Technological Forecasting and Social Change*, *163*(120469), https://doi.org/10.1016/j.techfore.2020.120469.

Soewardikoen, D. W. (2019) *Research Method of Visual Design*. Yogyakarta: PT Kanisius.

Syarif, A. R. (2018) *Color Language: Concept of Color in Javanese Culture*. University of Hasanuddin.

Taufiq, S. A., & Wulandari, R. (2016) Placement Location Effectiveness of Signage System in The Lobby of Railway Station Bandung. *Idealog: Idea and Design Dialogue Indonesia*, *1*(1), pp. 49–62, https://doi.org/10.25124/idealog.v1i1.842.

Tinarbuko, S. (2012) *Semiotics of Visual Communication* . Yogyakarta: Jalasutra.

Utami, B. A., & Kafabih, A. (2021) Indonesian Tourism Sector in The Middle of Covid-19 Pandemic, *Journal of Economy Dynamics and Development*, *4*(1), pp. 383–389, https://doi.org/10.33005/jdep.v4i1.198.

Utami, R. N. F., Muhtadi, D., Ratnaningsih, N., Sukirwan, S., & Hamid, H. (2020) Ethnomathematics: Exploration of Borobudur Temple, *JP3M (Journal of Educational Research and Teaching of Mathematics)*, *6*(1), pp. 13–26, https://doi.org/10.37058/jp3m.v6i1.1438.

Wijayanti, E. N. (2019) Typology Study of Placement and Signage Design As A Need of Learner City And Tourism (Case Study: Gondokusuma Sub District and Jetis Yogyakarta City). *Seminar on Architecture Research and Technology*, pp. 215–225.

Wirasasmita, D. N., & Swasty, W. (2020) Sign System Redesign on Informative Tourism Object Site As An Effort To Creat The Site Image, *Journal of Fine Language*, *4*(1), pp. 17–27, https://doi.org/10.31598/bahasarupa.v4i1.590.

Yatno, T. (2020) Borobudur Temple As Profan Sacred Phenomenon: Religion and Structuralism Perspective of Tourism Levi Strauss. *SABBHATA YATRA: Journal of Tourism and Culture*, *1*(1), pp. 1–14.

Zhang, W., Zhu, L., Zhang, Z., Zhang, Z., & Lu, L. (2020) A sustainable evaluation method for a tourism public wayfinding system: A case study of Shanghai Disneyland Resort, *Sustainability (Switzerland)*, *12*(20), pp. 1–18, https://doi.org/10.3390/su12208489.

Zuhriah. (2018) *Color Meaning in Culture Tradition: Contrastive Study Between Indonesia Culture and Foreign Culture*. University of Hasanuddin.

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