Analysis of Environmental Graphic Design: A Study Case from Hospital in Indonesia

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Abstract, Environmental Graphic Design (EGD) is one of the roles of graphic design objects in an area. The goal is to provide information about the placement and identity of a place. EGD should had the standardization which had in several areas as corporate identity, one of them is a hospital. Pondok Indah Group Hospital (RSPI) is a private hospital that manages three hospitals in Indonesia, one of is RSPI-Bintaro. The main problem is the differences in EGD from each branch. This makes the difference in an EGD identity from each RSPI, one of them is the EGD at RSPI-Bintaro. The research was conducted at RSPI – Bintaro in an outdoor area (Signage exterior). This study uses a descriptive method to be able to describe and classify EGD at RSPI-Bintaro. This research goal is conducted to describe the EGD, especially the signage for the RSPI-Bintaro area in terms of visual elements and functions. The benefits of this research add to the scientific body of EGD in Hospitals. Besides, the exterior signage of the RSPI-Bintaro area is quite good and informative have compared to other branch hospitals.

1. Introduction

Environmental Graphic Design (EGD) or known as environmental graphics are all forms of graphics in an environment, including directions, information boards and graphic ornaments including writing or names on buildings in two or three dimensions [1]. One of them is the signage design which is part of the environmental graphic design (EGD) whose purpose is very important to direct the route or the intended direction, especially public spaces, such as hospitals [2].

EGD can be designed in an accordance with the company's visual identity, which has the identity of simplification from concept and complex idea which has by each person or company [3]. The goal is for EGD to adjust to the characteristics of the company. It is also inseparable from the selection of fonts and colors that need attention so that they reflect the visual identity characteristics that exist in EGD [4]. Pondok Indah Group Hospital (RSPI) is a private hospital group that manages three hospitals in Indonesia, namely RSPI - Pondok Indah, RSPI - Puri Indah and RSPI - Bintaro, which provide health services. The role of environmental graphic design at Pondok Indah Hospital really helps visitors to get information without asking. The three branch hospitals have different EGDs, this is a problem of aesthetics and visual identity for Pondok Indah Hospital. RSPI – Bintaro is one of other branch which has EGD with a good standard. This research will focus on RSPI – Bintaro especially in exterior signage area. This area was chosen because it relates to a sign system that can be accessed or seen by the general public crossing the area. This study

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will examine the design composition, color, use of materials in signage and their functions. The goal is to know the visual elements and a good sign system.

Figure 1. RSPI - Bintaro

2. Method

The method used is descriptive method. This method is a research that seeks to describe a symptom, event, and event that is happening at the present time where researchers try to photograph events and events that are the center of attention to then describe them as they are [5]. So that researchers can describe and classify in a deep and systematic way. The descriptive method on this problem is used to reveal the actual problem and can describe the problems that occur with the EGD at RSPI - Bintaro which is the reference for EGD at other RSPI branches. In addition, this research was conducted to find out and describe the design composition, colors, and materials used and their functions. The data can be concluded into an analysis later.

The data collected will use a collection technique in the form of direct observation of the exterior signage of RSPI - Bintaro by analyzing existing signage. Observations were made on January 24 and February 1, 2023 to directly review field conditions. As well as a good literature study, the references used are from books, journals, magazines, and the internet for which later this research can be justified.

3. Result and Discussion

3.1 Environmental Graphic Design

Environmental Graphic Design (EGD) is a graphic design that includes interior, landscape, industrial, urban planning, architecture, and behavioral psychology design. EGD also connect with the visual aspects of wayfinding, information design, and identity to develop a graphic atmosphere in a place. EGD can be called a relationship between art and science because it includes signs, symbols, maps, statues, fixtures, lights, sidewalks and all architectural and graphic elements [6]. Referring to its functions and benefits, EGD divides it into three [7], namely:

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1. Exhibition design, EGD's role at the exhibition is very helpful in spatial planning and can facilitate interaction between visitors and the showroom.
2. Wayfinding design, in its function EGD has the meaning as a solution for the media to find a way to get to the desired place, where the purpose of wayfinding itself is to help the audience find their way easily.
3. Information Graphic Design, in its function EGD places more emphasis on information content that can be absorbed by the audience, so that it is of higher quality in building information, data, or even knowledge for the audience.

The sign system is also known as wayfinding, which is a method that regulates or directs people through the media of a sign system, so that they follow what is desired [8]. In the sign system, color is the most important part because it gives different meanings. The colors used must be used according to their function, red can be said to give the color of urgency or danger, green is used as a sign of emergency, first aid, and protection against fire [9]. One of the public facilities that also requires a sign system or EGD is a hospital [10].

3.2 Environmental Graphic Design RSPI

Pondok Indah Hospital (RSPI) is one of the private hospitals in Indonesia, the role of EGD at the hospital is very helpful for visitors providing information and finding directions. EGD at RSPI has differences in each branch, this makes the problem of aesthetics and visual identity of Pondok Indah Hospital. There are three branches, RSPI – Pondok Indah, RSPI – Puri, RSPI – Bintaro. The three EGDs at RSPI have differences, and what is considered quite good is the EGD at RSPI - Bintaro because the EGD was designed by a specialist EGD consultant by PT. Indonesian Debate. Built on an area of 12,600 square meters and a building area of 34,000 square meters. The EGD in the RSPI – Bintaro building is divided into two areas, namely the interior and exterior areas.

3.3 Analysis Environmental Graphic Design RSPI - Bintaro

In this discussion, we will discuss the exterior signage of RSPI - Bintaro, there are several items that are installed according to their placement. Based on its function, Signage can be categorized into four types: Identification, directional, orientation, and regulatory [11]. Identification signs are signs used to identify a place. Directional signs are signs that help people show directions. Orientation signs are signs that help people orient themselves. Regulatory signs inform people about the rules in a certain place to regulate people in that place [12].

There is also a poor location and readability level that causes the signage to not function properly. The use of color and texture of the material used also affects the ease of conveying information. Font size and lighting will also have an effect, depending on how far the visibility is needed, as well as what type of font is used. The basic materials commonly used for outdoor signs are limited due to the effects of sun and weather which can damage the material. Materials commonly used for outdoor signs are sheet metal, steel structural shapes, wood, exterior grade plywood, acrylic plastic, copper, aluminum, stone, concrete, fiberglass [13].

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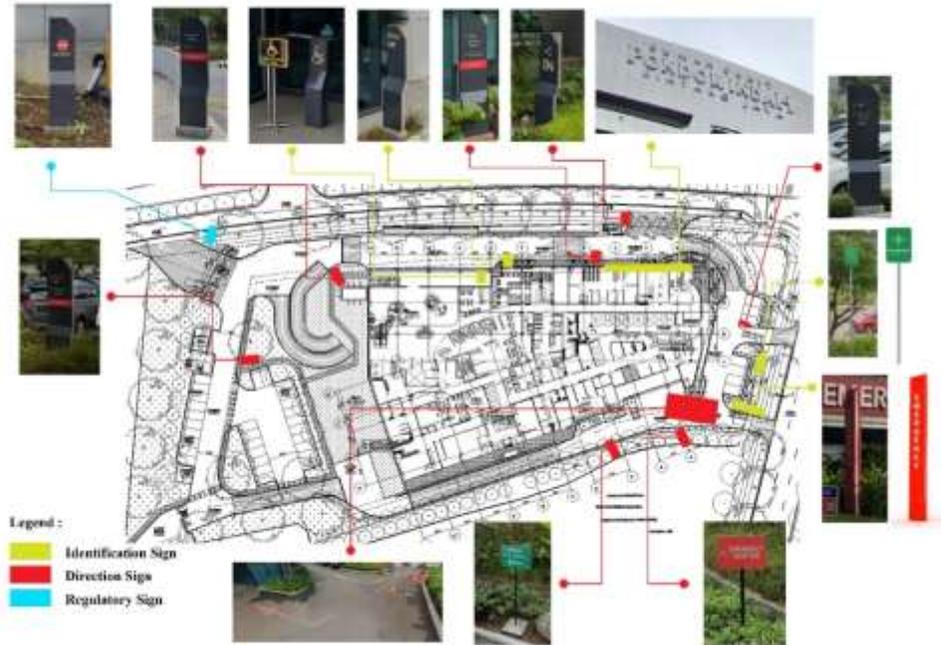
Figure 2. Signage Placement

Table 1. Examples of Identification, Directional, and Regulation Signs in outdoor area RSPI - Bintaro.

No	Category	Images	Explanation & Material Use
1	Identification Sign	Building Sign	**Building Sign**, used to identify hospitals that can be seen by the public and can be seen from a distance of up to approximately 500 meters. **Font:** Serif font is used in the main logo RSPI, on Bintaro Jaya using San Serif font and for the color on the white logo. **Placement:** Building sign is mounted on the walls of the building **Material:** made of acrylic on the front area of the front writing and for the foundation of the back writing using stainless steel and inside there is an LED light. So that at night the building sign can be lit and seen clearly from a distance.

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Emergency Sign, generally in every hospital in Indonesia it is mandatory to have an Emergency Room (IGD) the signage is clearly visible in the outside area. There are two signage, the first in the park area (near main road access) and the second attached to the building area.

Font and color: San Serif font type used in emergency sign and red color used as background color, white color used for channel letter. red color gives a message of danger and emergency and white also represents cleanness and hygiene.

Placement: there are two types of emergency signs, the first type is installed on the wall of the building, and the second is installed in the garden area near the entrance

The material used for the first signage uses an acrylic base material in the text and body parts, inside of which there are LED lights and on the main body uses 1.2mm galvanize plate material with a hollow iron structure used as the foundation. In the second part materially the same as the material.

Emergency Sign

Emergency Sign

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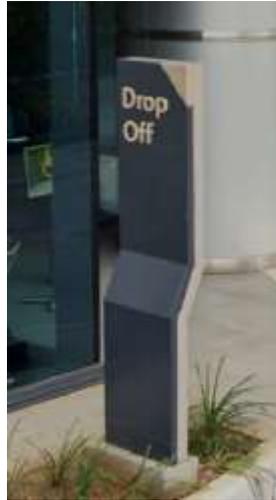
Drop Off Sign

Drop off area sign, used for areas to drop off passengers, both patients and non-patients who come to the hospital.

Font and color: San Serif font type used in drop off sign and the colors used are dark gray on backgrounds, cream colors on the channel letters. Gray is a calming, focused, and neutral color

Placement: installed in the garden area near the lobby

The material used is 1.2mm galvanized plate on the body part which is duco painted according to the color. Painting is done to avoid corrosion so that it lasts a long time. In the text using acrylic

Disable parking area sign

Disable parking area, used to store wheelchairs with disabilities placed in the entry area.

Pictogram: there is a pictogram that represents a disability and the colors used are dark gray in the background, beige in the pictogram. Gray is a calming, focused, and neutral color.

Placement: installed beside the lobby

The material used is 1.2mm galvanized plate on the body part which is duco painted according to the color. As well as the wheelchair support parts using stainless steel pipes.

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Disable parking area sign

Assembly Point sign, is an area of gathering point that is used for a safe area in the event of something like a fire, earthquake and other places where it is a safe area.

Font and color: there are pictograms that represent gathering points and the font in the description used is san serif, there are two languages, namely Indonesian and English. The color used is dark green on the background and white on the pictogram and description. the green color in the sign system denotes areas of special interest that must be equipped with signs and/or instructions

Placement: installed in the park area close to the parking lot

The material used is 1.2mm galvanized plate which is green in color using duco paint and the contents are filled with a Reflective Cutting Sticker.

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2   Direction Sign

Direction sign

Direction Sign used to direct the audience to the destination and some directions have emergency directions which are marked red.

Font and color: San Serif font type used in direction sign and the colors used are dark gray on backgrounds, cream colors on the channel letters and and the red line is used to direct emergency. red color gives a message of danger and emergency and gray is a calming, focused, and neutral color.

Placement: installation in areas that are easy to see such as entry areas, parking areas, and parks.

The material used is 1.2mm galvanized plate on the body part which is duco painted according to the color. Painting is done to avoid corrosion so that it lasts a long time. In the text using acrylic.

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Emergency direction sign

Emergency direction sign, used as an emergency or first aid. The red color directs the emergency room (ER) for patients and the green color is used to direct the place of first aid in case of danger such as fire.

Font and color: The font type used is san serif. red color used as background color, white color used for channel letter. red color gives a message of danger and emergency and white also represents cleanness and hygiene.

Placement: installed in the park area close to emergency area.

The material used is 1.2mm galvanized plate which is green in color using duco paint and the contents are filled with a Reflective Cutting Sticker.

Arrow direction street sign

Arrow direction street sign, there are two color arrow directions on paved road areas. These two arrows have different purposes, the white color points to the area or path of the hospital road and the red direction points to the Emergency Room (ER).

Color : the red color is used to direct to the emergency area and the white color directs to the hospital road area

Placement : entrance area

The material used is based on thermoplastic paint. Type of paint made from synthetic resin materials and mixed glass beads used for road safety.

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3   Regulatory sign

Regulatory sign

No Entry Sign, is part of the regulatory sign which is prohibited. Installation of this signage in the vehicle exit area.

Font and color: San Serif font type used in drop off sign and there is a prohibition symbol. The colors used are dark gray on backgrounds, cream colors on the channel letters. Gray is a calming, focused, and neutral color.

Placement : in the pedestrian park area near the parking lot exit

The material used is 1.2mm galvanized plate on the body part which is duco painted according to the color. Painting is done to avoid corrosion so that it lasts a long time. In the text using acrylic.

4. Conclusion

Based on the results of the above observations and analysis, it appears that differences in signage design are made based on their functions starting from identification signs, direction signs, and regulatory signs. Partly made with the characteristics of the identity used (template) and the color of the signs that are used follow the rules of the color of the signs in general, such as red and green which mean emergency, danger and first aid. From the whole exterior signage design, it is quite good in terms of design, placement, and the use of materials that are very concerned. The drawback of the signage is that it is made, especially in the information section on the direction sign, the size of the text is felt to be too small and can only be seen from a close viewing distance.

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