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ECO-MATERIAL APPLICATION IN ERHA BEAUTY CLINIC INTERIOR, JAKARTA

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ABSTRACT

The number of free radicals in the city of Jakarta is increasing along with the increase in air pollution caused by vehicle activity, factory and cigarette smoke, and so on. With age, the body's strength against free radicals will decrease. Skin care is a support for the condition of skin integrity, to maximize an appearance and change the condition of the skin. Erha is a brand from Indonesia which has now developed into a skin specialist clinic that provides a variety of skin health products and services. Recently the Erha clinic held the "Erha Start to Change" program, which is a program carried out as an effort to reduce the effects of global warming, where customers return empty product packaging for recycling. To support this program, an interior design idea emerged at the Erha clinic which would apply aspects of green design to be in line with the program and could also be an effort to reduce the impact of global warming. This design uses a modern naturalist concept which gives the impression of a modern space, but still looks and feels a natural and natural atmosphere. The design is done by looking for a layout that will be designed first. Next, enter into programming using literature studies and field studies. The design will be presented by showing the results of applying design studies to the presentation drawings.

Keywords: *Erha clinic, green design, interior design, planning*

1. PREFACE

Jakarta is the capital of Indonesia so people's lifestyles tend to be more modern. Because it is the capital of Indonesia, Jakarta has a large population so that the traffic conditions in the city of Jakarta are very dense which causes an increase in pollution due to vehicle activity, factory and cigarette smoke, and so on. The number of free radicals also increases with increasing air pollution. The body's strength against free radicals will decrease with age. Skin care is a support for the condition of skin integrity, to maximize an appearance and change the condition of the skin. At this time, the use of skin care in Jakarta is not only influenced by needs and health factors, but also influenced by the trend and modern lifestyle of society.

Erha is one of the subsidiaries of PT. Arya Medic. Erha Clinic is engaged in community service in the branch of dermatology (the medical department that studies the skin and its parts). There are various kinds of treatment facilities offered at Erha clinics such as Erha personalized programs, lasers and others. Recently the Erha clinic held the "Erha Start to Change" program, which is a program that is carried out as an effort to reduce the effects of global warming, where customers return empty product packaging for recycling. To support this program, an interior design idea emerged at the Erha clinic which would apply aspects of green design to be in line with the program and could also be an effort to reduce the impact of global warming.

2. RESEARCH METHOD

The design method used is divided into two stages. The first stage is the stage of analysis, problem identification, research, and surgery. In this section, the designer provides alternative

ideas regarding steps to solve the problem. The next stage is synthesis, where problems are gathered together so that a solution can be formed which can then be implemented.

Figure 1
Chart Design Method by Rosemary Kilmer

In the design design method according to Rosemary Kilmer, there are several parts based on the design mindset chart. Here are some steps:

1) Commit
   Accept and commit to a project.
2) State
   Identify existing problems.
3) Collect
   Combine information and field data that has been obtained and collected.
4) Analyze
   After the information and data that has been obtained in the analyze section is collected, a concept map design is made so that problems and solutions are found in the design.
5) Ideate
   At this stage, making a design concept and also making a material concept that will be used in the design and must be in accordance with the design that will be carried out.
6) Choose
   At this stage the previously formed concepts and alternatives will be selected.
7) Impement
   Applying the material that has been determined based on research data that has been collected in the previous stages.
8) Evaluate
   Evaluate or review the concepts that have been produced and develop if necessary.

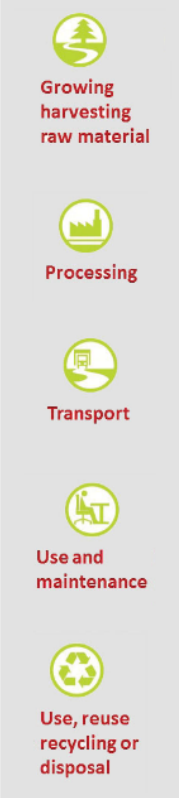
In addition to the design process, the literature study method is also used, namely a method that uses data found, combined, analyzed, and given conclusions so that answers to the research problem formulation can be found. Literature study or also commonly referred to as library research is an activity of conducting research obtained from written works, in the form of published or unpublished papers (Embun, 2012). Library sources can be used to obtain research data, not only for the preparation of a research framework (Milya Sari, 2020).

3. RESULT AND DISCUSSION

Understanding the concept of green design, namely a process of approach and planning of a building that seeks to minimize various impacts that are harmful to human health and the natural environment. As a basic understanding of green design that continues, the inside of a building must have a landscape and items that should be made to be in harmony with the unity in the architecture of the building. As one example, green design can be created around our area, for example, a home environment with green land, which is part of the business of utilizing roofs designed with gardens on the roof and walls designed with green walls, so that the walls are not just made only from concrete or stone that comes from nature, but can also be supported by vines (Rachmayanti, 2014).

The overall life cycle of these goods is also a factor. The life cycle in question is the initial purchase of the product, the production stage, when the product is used, to the stage of disposal and processing of the product.

Figure 2
Products Life Cycle



Green design is one of the responsibilities that develops along with people's understanding of the importance of conservation for the preservation of the natural environment. In this era, the concept of green design has a big impact on design aspects, the effects of global warming, increasing CO2 emissions, makes designers consider designs that protect the environment more from damage. Green design is usually also known as Environmentally Conscious Design (ECD), Design for the Environment (DfE), Design for Sustainability (DfS or D4S), Environmental Product Development (EPD), and Sustainable Design. Basically, green design is about how to design an item or product that can preserve the environment and is also effective because there is no instant solution to fix the damage to the natural environment caused by non-sustainable

patterns or production systems (Winchip, 2011). Each individual should be responsible for dealing with damage to the natural environment.

The following are 3 things that are the goals of the basic sustainable concept (Jong-Jin Kim, 1998):

1. Reducing the use of materials and energy.
2. Minimizing the negative effects resulting from the carrying capacity of the environment as well as from the environment itself.
3. Complete the needs of human life.

There is a division of 3 primary areas for the Principles of Sustainable Design, namely:

1) Operational principles, which consist of procedures for selecting decisions for the long term, working with parties involved in sustainable design or sustainable design, minimizing direct or indirect impacts or influences on the natural environment.
2) Philosophical principles, which consist of respecting the needs of users of the present and future generations, optimizing energy such as managing natural resources, and sustainable solutions that are cost effective, and easy to maintain.
3) The principle of practice, which consists of minimizing and eliminating pollution in the natural environment and in goods, materials, finishing and building systems, durable goods.

The principle of sustainability is a guideline that must be implemented, where the natural environment and humans have a very close and interrelated relationship in order to produce a better sustainable life.

In designing the Erha Clinic, green design aspects will be applied as an effort to reduce the impact of global warming, one way is to use eco-materials.
What is meant by materials that are eco-friendly or eco-materials are materials that have a special design to minimize damage to the environment as small as possible. Meanwhile, according to the US agency EPAEPP eco-friendly materials are materials or types of activities that can minimize and improve human health and the environment when compared to other materials or forms of activity that have the same function. (Novian Wibowo & Anderas Pandu Setiawan, 2013)

Here are some eco-material criteria (Winchip, 2011):

a) The use of local materials at low prices so as to minimize shipping costs, the fuel used when delivering products and also CO2 exhaust gas generated by vehicle exhaust.
b) Building materials such as wood from certified and accredited forests.
c) Materials that can be recycled or commonly referred to as recycled materials. The recycling process is also not allowed to create residual waste during the production stage or when the life cycle is over.
d) Materials such as wood or wood coatings can be reused to become building materials.
e) Rocks resulting from the results of excavation in the ground.
f) Material reuse to reduce the use of energy used to produce new materials.

For the ceiling use gypsum board while for the design part it is adjusted to the shape of the ceiling according to the needs of each room. Gypsum Board is a material that can be recycled or reused and is also energy efficient (Ratna, 2013).

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Figure 3
Gypsum Board

On the walls used finishing paint, marble stone, and WPC (Wood Plastic Composite) according to space requirements. Marble can be recycled and is a non-toxic material. Marble does not have chemicals that can damage health because the building materials come from nature (Frick & Suskiyatno, 2007). Just like marble, WPC or Wood Plastic Composite can also be recycled and has strong durability so it can be used for a long time (Efendy et al., 2020).

Figure 4
Marmer Stone

Figure 5
Wall Paint

Figure 6
WPC (Wood Plastic Composite)

As for the floors, parquet, marble and terrazzo finishing are used in different rooms with their respective needs. Parquet is a material with natural ingredients, can be recycled and also does not contain poisons/chemicals (Ratna, 2013). Meanwhile, terrazzo floors have the same basic ingredients as the basic ingredients for tile floors, namely using a mixture of cement, sand, and the surface layer is created from a mixture of sea shells and marble fragments so that it can be said to be an environmentally friendly material (Efendy et al., 2020).

Figure 7
Parquet

Figure 8
Terrazzo

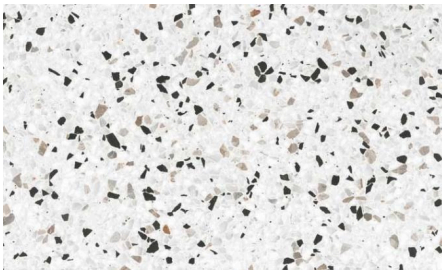

Figure 9
Marmer

4. CONCLUSIONS AND RECOMMENDATIONS

The interior design at the Erha Clinic, Pondok Indah, South Jakarta, will apply aspects of green design so that it can become an effort to minimize the impact of global warming and also to be in line with the program Erha just released, namely the "Erha Start to Change" program, where customers return empty product packaging for recycling.

Green Design or also called Eco-design is a design approach that thinks about the impact of using items that are designed to damage the natural environment. The use of eco-materials is one aspect that can be applied to achieve green design.

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In this design, eco-friendly materials will be used, such as gypsum board, marble stone, WPC (Wood Plastic Composite), terrazzo, and also parquet. These materials can be said to be eco-materials because they have the following criteria:

a) Does not contain chemicals / toxic.
b) Natural materials.
c) It has high durability so it can be used for a long time.
d) Recyclable.
e) Energy saving.

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