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## PUBLIC LIBRARY FAÇADE WITH A CONTEMPORARY ARCHITECTURAL APPROACH

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### **Abstract**

*This article will present the façade of a public library that is designed to have a striking character appearance to be identified by library users by adopting a contemporary architectural approach. The façade is a crucial part in determining the characteristics of a building. The main objective of this article is to produce a flexible facade design that responds to the needs of users and the environment to encourage active social interaction in the library and presents a landmark that connects tradition with modernity through the facade. The research method used is descriptive qualitative through problem formulation or case study, search for relevant, metadata analysis, and design. decision-making contemporary architecture produces the appearance of an innovative facade by utilizing color, sustainability integrated with double skin facade (DSF), functionality through ornaments, and integration of modern technology in the placement of videotrons*

**Keywords:** building , appearance materials, library, contemporary architecture

### **INTRODUCTION**

The facade is a crucial element in architecture that serves as the face of a building, as a medium, and can create the first impression of a building. The same goes for libraries, which are often considered a place to store books and knowledge. However, with the development of the times and the increasing dynamic, the appearance of the library is no longer only focused on its function but also reflects the identity, values, and functions of the design object. A well-designed facade can draw people's attention to the library. Libraries are faced with the needs of society's challenge to adapt and innovate. One important aspect in this research process is the design of the library facade, to harmonize contemporary architectural principles that can integrate modern aesthetic elements to create a space that is not only visually appealing but also functional, flexible, and able to meet the needs of library visitors.

Contemporary Architecture is a harmonious choice for the library façade because it can present a modern and flexible form following the times. Freedom of expression is one of the main characteristics of the approach which is channeled into geometric and dynamic shapes, colors, and innovative materials. All of the elements will be applied

to the visualization of the library facade creating a space that is not only visually appealing but also invites the interest and curiosity of visitors.

Contemporary architecture has characteristics and principles according to Egon Schrimbeck in (Schirmbeck, 1987) has strong and sturdy building principles, dynamic forms, expressiveness, flexibility between spaces, and spaces that are integrated with outdoor spaces prioritizing ultimate. In the comfort context of the library, these principles are important to create a comfortable, space functional, and has a strong character. A facade that prioritizes ultimate comfort will give a more positive impression to library visitors.

Based on the conclusions that emphasize that façade appearance has a very important role as an eye-catching element in a building. This is especially relevant in libraries, which are often considered unattractive or boring. By utilizing a design approach that processes the mass form of the facade and integrates dynamic elements drawn from the above, discussion article later geometric, the facade of the library can be designed in a way that creates a more visually appealing and appealing impression.

## METHODS

This research method uses a qualitative method to analyze the appearance of public library facades with a contemporary architectural approach. This method was chosen because it can solve problems in the design elements of the library facade. The stages of data collection will include finding problems, searching for data on problems, analyzing data, and determining design concepts on design objects.

The first stage in this research is to find a problem or case study. The problem being discussed is the appearance of the library facade with an architectural approach that must have attractive, innovative characteristics. Produce a design that is functional and responsive to the needs of the library.

The second stage is the search for relevant data through the literature study method and case study on facade appearance. A literature study will be conducted to gather information from various sources, such as books, articles, and previous research that discuss the facade appearance of the library with a contemporary architectural approach. Through this analysis, the design elements, functions, and impacts of the library facade display will be explored. analysis

The third stage is data analysis. After the data is collected, the information obtained from the second stage will be analyzed and identified the relationship between the facade appearance and contemporary architecture, the results of this analysis will be used to conclude the effectiveness of public library facade appearance in attracting library visitors.

The fourth stage is making design decisions resulting from the design analysis that has been carried out. Design decisions will include various factors such as the shape of the building, innovative materials, colors, patterns, and green elements, then design

decisions will be compiled so that they can be used in designing the appearance of the library facade.

## RESULT AND DISCUSSION

This design object will discuss the application of the architectural approach in designing the appearance of the library. facade use of innovative and modern elements, such as the play of shapes, materials, and lighting can change the image of a library often considered monotonous to be more dynamic and pleasant than is to see. In addition, the discussion also underlines the importance of integrating sustainability aspects. With this approach, the library façade can give an impression that reflects the contemporary needs of the modern era.

Site location data shows it is located on vacant land precisely located Beach Jl. KH Ahmad Dahlan, Tanjung Riau, Village Sekupang District, Batam City. With a site area of  $\pm 12,000 \text{ m}^2$ . The site boundary in the east direction is Fisheries, in the south there are residential areas and education, in the west direction is the sea, and in the east direction, there are local roads and settlements. Equipped with minimum GSB data of 20 meters, minimum KDH of 10%, maximum KDB of 45%, maximum KLB of 50%, and minimum RTH of 30% which will affect the design of the site shape and optimal placement of library buildings.

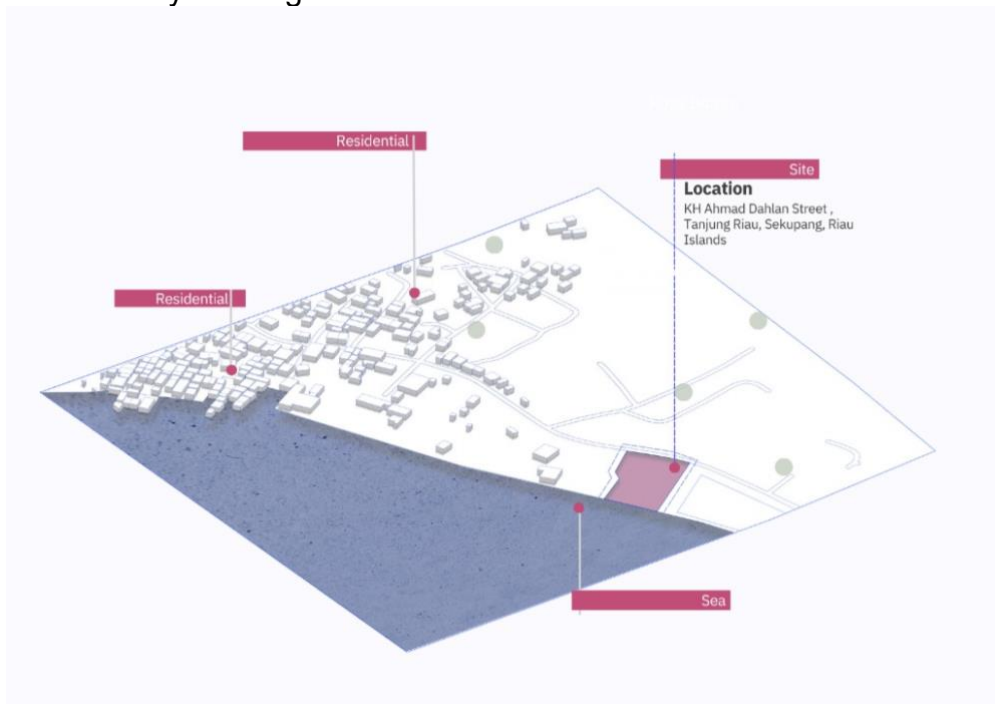


Figure 1. Old Village Public Library Site Location

### a. Color

Color plays an important role in shaping the visual impression of a building. The right color choice can have a significance on the atmosphere and image of the impact building, whether to create a modern or natural impression. Color can also be used to highlight certain design elements, provide contrast, or unify various existing materials.

Thus, color on the facade not only functions as a complement aesthetic but also as an element that strengthens the character and identity of the building as a whole.

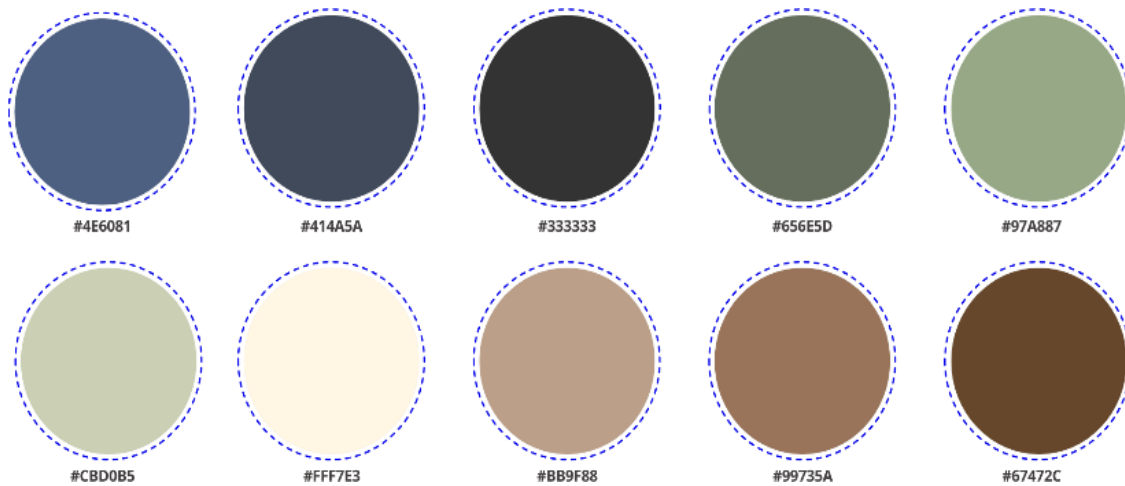


Figure 2. Color in Facade Display

Neutral colors in facade appearance can reinforce other elements. Neutral colors allow materials such as wood, glass, or concrete to appear more dominant and more clearly visible. These neutral colors act as supports that reinforce the visual impression of the materials used, creating harmony and balance in the façade design, so that each material stands out without clashing with each other but in harmony.

#### b. Double Skin Facade (DSF)

Double Skin Facade (DSF) is a system double layer on the building facade consisting of two sheaths, between the two sheaths there is a cavity that contains air. At the top and bottom of this skin facade construction, there are openings (in-let and out-let) as a container for air exchange from outside to inside the envelope. With this application, there will be an air exchange process in the sheathing that will drain heat from the sheathing so that the heat load of the inner sheathing surface will be reduced (Mulyadi, 2012).

The distance between the outer glass and the inner glass is between 35cm - 50cm. The outer glass wall is 12 mm thick of high-transmittance glass (generally clear glass), while the inner glass with a thickness of 6 cm-8 cm is a type of high-performance glass. It has an open-air cavity at the top and bottom of the building. The mechanism of the Double Skin Façade is automatically controlled by electric sensors that detect temperature and wind speed. In hot weather, the electric demister will open and encourage the stack or stratification effect inside the glass chimney. The heat transmission collected from the outer glass layer together with the heat reflection from the inner glass layer and a certain height factor will encourage vertical ventilation flow. (Priatman, 1999)

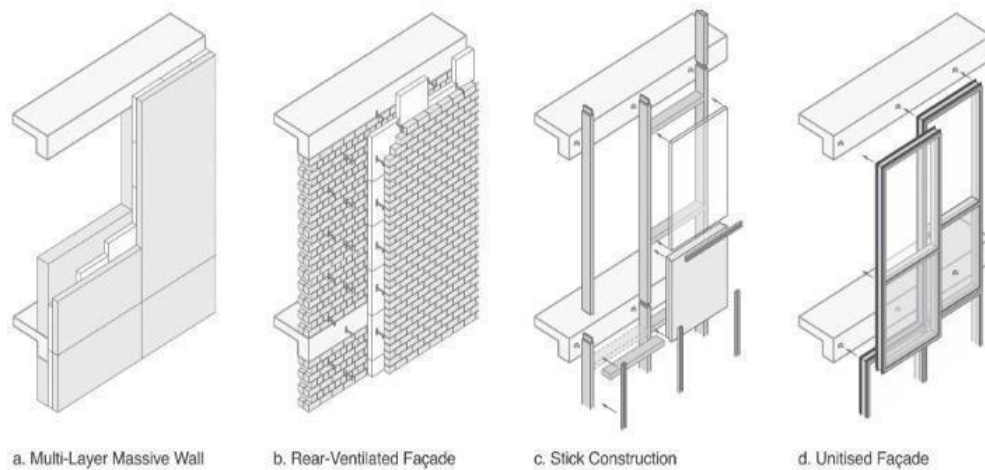


Figure 3. Double Skin Facade (DSF) Layer Type

The application of a Double Skin Facade (DSF) to library building east-facing provides a number of significant advantages. It not only improves energy efficiency by reducing energy use for cooling and lighting, but also provides better protection against the adverse effects of sunlight, rain, and wind.



Figure 4. Shading Library Site

The resulting shading of the site maximizes the use of DSF through the quality of natural light entering the space, creating a more comfortable and pleasant for library visitors. In addition, this design also supports the principle of building sustainability, by reducing carbon footprint and environmental impact, as well as providing a modern and attractive aesthetic value atmosphere.

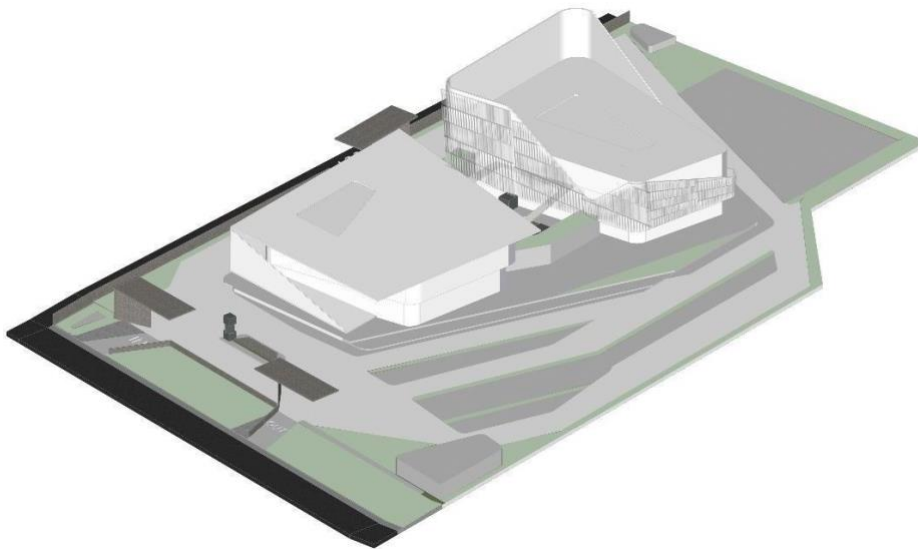


Figure 5. Application of Double Skin Facade (DSF) on Library Facade Display

#### c. Ornaments

Ornamentation is an important element in facade appearance that plays a major role in giving character and identity to a building. In addition to functioning as an aesthetic element, ornaments are also part of a design strategy that affects various aspects, such as lighting, ventilation, and energy efficiency. Ornamental design on facades often combines functional and visual elements in a balanced way, resulting in an attractive appearance while supporting the comfort of occupants or visitors.

According to F, L, Wright (1953) in his book "The Future of Architecture" states that ornamentation in architecture is not just decoration, but an element that must be integrated with the form and function of the building.



Figure 6. Form of Ornament on Facade Display

Ornaments in contemporary architecture are not only useful for beautifying the appearance of the building but also play an important role in a more functional design. Facade ornaments are needed to add visual appeal while contributing to the comfort and efficiency of the library building. Facade ornaments can create a dynamic impression and support the need for more efficient space both in terms of lighting, ventilation, and energy savings in library buildings.

#### d. Videotron



The Videotron serves as a bridge between technology and architecture, creating a more interactive and engaging space. Utilizing digital technology can create a new experience for visitors, making the building not only function but also interact and communicate (Ching, 1975)

The façade, which integrates the use of additional material in the form of a Videotron, creates a dynamic visual element that not only enhances the aesthetics of the building but also provides an interactive experience by displaying various digital content in real-time. The Videotron adds a new dimension to the façade, allowing the building to adapt to changing times, events, or messages and creating a strong visual appeal to bystanders or visitors. must be integrated with the form and function of the building.



Figure 7. Form of Ornament on Facade Display

## CONCLUSION

The conclusion from the discussion of data regarding the appearance of the facade in the library shows that the use of color, double skin façade (DSF), ornaments, and Videotron in facade design can produce a modern and innovative appearance. Carefully selected colors give a strong visual impression and reflect the character of the building.

Color on the facade has an important role in forming a strong visual impression and reflecting the identity of the building. The right color selection can create an atmosphere that matches the character of the library, such as neutral colors that give an impression, or bright colors that give a fresh impression and invite visitors to read. Color also affects the psychology of visitors by creating a comfortable and pleasant library atmosphere. give a broad

Addition, the use of the double skin facade facade concept in the library also provides benefits significant in terms of energy. efficiencyThis system not only helps regulate the interior of the building but also improves visitor comfort by reducing heat and noise

temperature from outside the site. This concept is increasingly relevant in contemporary architecture as it supports sustainability and natural resource efficiency. Ornaments on the library facade that are designed following the context will provide added value in creating a relationship between the building and library visitors. These ornaments not only serve as decorative elements for the library, but can also reflect the cultural identity of the area, namely Kampung Tua, provide a unique, and create a more personalized impression for library visitors. character

The Videotron on the library facade is also one of the elements that enrich the visitor experience. This technology provides an opportunity to present dynamic and interactive information through visual displays that can be customized according to the needs and activities of the library. The Videotron can display content relevant to the library, activities such as events, book updates announcement, or educational materials organized by the library while turning the facade into a living and evolving communication medium.

The application of design elements such as color, and double skin facade Videotron in the library facade with a contemporary architectural approach results in a work that is not only aesthetically pleasing but also responsive to functional and sustainability needs. The combination of, ornaments, and these elements can create a harmonious balance between aesthetics, technology, and the environment, which characterizes contemporary architecture that will continue to evolve.

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