



## The Interpretation of Contextual Architecture in Designing Public Library in Balige

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**Abstract.** Teachers, lecturers, students, and the community use the library as a knowledge and information resource in the context of implementing learning. A library is often thought of as a sizable book collection that is kept for the express purpose of gathering, maintaining, and dispensing books. Students can look up and gather the most recent scientific data in the library, which aids them with their assignments. People's preference for instant information via social media, especially students, is one of the reasons reading is becoming less popular these days. Aside from the fall in students' interest in reading, two other reasons why libraries are silent are their incapacity to adapt to the changing times and their failure to satisfy the demands of students. As a result, Balige must have a public library that can serve everyone in the city and can meet the demands of community activities. This Public Library design uses a contextual architectural approach to integrate various elements of the surrounding building facades.

**Keywords** Library, Public Library, Contextual Architecture

### 1. INTRODUCTION

Schools and other educational institutions typically provide a large range of learning resources. To support education and learning, it is essential to find, offer, create, and make use of a variety of learning resources. Learning resources facilitate the utilization of diverse service activities, including counseling, learning services, and mentorship, with the aim of enhancing the efficacy and efficiency of the learning process. Students can also effectively use the many features offered by other providers of learning resources when they are studying. The school library is one place to get education. A crucial component of the overall school curriculum is the library. The library serves as a source of knowledge and information for educators, lecturers, students, and community members when conducting learning activities. taking into account the growing need for school libraries to support educational initiatives.

A library is often thought of as a sizable book collection that is kept for the sole purpose of gathering, conserving, and facilitating access to literature. In addition, the library is linked to librarianship as users, maintenance, and storage. Through the creation of novel ideas that raised libraries to a recognized position as hubs of scientific and educational activity, libraries have historically been integrated into educational and research functions. The existence of libraries considerably aids in the advancement of public knowledge and education. Considering that libraries are for-profit businesses that offer library services as a public good, this makes

reasonable. Finding knowledge is crucial for the academic community, especially when it comes to historical material found in books.

Students can find and gather the most recent scientific data in the library, which aids them in their academic work. One of the reasons reading is not as popular as it once was is that many people, especially students, prefer to get information fast via social media. Aside from students' waning interest in reading, other factors that contribute to libraries being abandoned include their incapacity to adapt to changing times and their incapacity to serve students' requirements. A library built to handle this kind of situation is required. Aside from that, people need to feel comfortable there, especially students, thus it's critical to have decent infrastructure, robust facilities, excellent service, and an adequate book selection.

## **2. LITERATURE REVIEW**

Designed to foster community engagement and collaboration. A public library can serve as a gathering place for individuals to come together, exchange ideas, and engage in meaningful conversations. By providing spaces for workshops, meetings, and discussions, the library can facilitate community building and contribute to the social fabric of Balige.

Additionally, sustainability should be a key objective in the design of the public library. Balige, like many other places, faces environmental challenges and the library should be built with sustainability in mind. This can include incorporating energy-efficient systems, using eco-friendly materials, and creating spaces that maximize natural light and ventilation.

In conclusion, taking into account the particular requirements of the local population is essential while developing a public library in Balige. Some of the main goals that should be sought in building a public library that efficiently serves the people of Balige include equitable accessibility to education, preservation and promotion of local culture, encouraging community engagement, and sustainability.

### **Library**

According to Law No. 43/2007 on Libraries, a library is an institution that manages collections of written works, printed works, and/or recorded works professionally with a standardized system to meet the educational, research, preservation, information, and recreational needs of the users. To put it succinctly, a convention is an assembly or meeting of people or organizations with the purpose of discussing ideas or concepts that are relevant to both parties and exchanging opinions, knowledge, experiences, or ideas. Resolving issues, communicating, exchanging expertise, and boosting local tourism are among the objectives.

Public Library is a place that manages collections of works, such as written works, printed works, and recorded works intended for the wider community to obtain information or knowledge located in Balige.

**Library Working Mechanism**

There are several mechanisms of library work :

1. Gathering data and acquiring library materials : creating operational plans for the acquisition of library items, gathering instruments for selecting materials, conducting user interest surveys, library material surveys, Making and gathering wish lists, choosing library resources.
2. Processing : creating operational strategies for categorizing, labeling, classifying, and arranging library items; arranging collections on shelves; and rearranging library materials.
3. Service : How to set up a library service

**Actors in Public Library**


A diverse range of individuals and organizations can use the resources and services offered by public libraries. In addition, libraries are meant to be a resource for the community as a whole, offering access to a wide range of materials for research, leisure, and education.




**Principles of Design**

Contextual architecture is a design philosophy that highlights the significance of incorporating the structure or design into the surrounding landscape. This is accomplished by adapting to the unique characteristics of the Balige neighborhood so that the public library may play a vital role in the neighborhood and foster goodwill toward the community and the environment.

**Comparative Study Results**

**Table 1 Comparative Study Summary**

Building	Study Case Summary
<p data-bbox="236 1675 512 1706">Lawrence Public Library</p> 	<ul style="list-style-type: none"> <li data-bbox="566 1581 1369 1668">• The library is extensively enclosed in glass, which creates openings at every corner and lets light into the existing library interior through new skylights and clerestory.</li> <li data-bbox="566 1675 911 1706">• Room programming concept</li> </ul>

<p>Pine Bluff Main Library</p> 	<ul style="list-style-type: none"> <li>• Connect with the surrounding environment</li> <li>• Space requirements and space planning, in accordance with the activities and types of activities to be accommodated and the capacity to use building space.</li> </ul>
<p>Victoria Homes, Sun Fransisco</p> 	<ul style="list-style-type: none"> <li>• Victoria Homes serves as an illustration of contextual architecture that complements the Victorian neighborhood style to maintain harmony with the existing neighborhood.</li> </ul>
<p>The Passage, Turquetil</p> 	<ul style="list-style-type: none"> <li>• Though their geometry and tonality closely resemble those of surrounding structures, these buildings neither mimic nor compete with them.</li> </ul>

### 3. METHODS

#### Location Selection Method

The method of determining the location is done by taking into account the following points:

- Located in an area dominated by education centers, commercial buildings, housing, or shopping centers.
- Can be accessed easily
- Land size that meets the space requirements
- Government regulations on the location

Where the location chosen is in Balige and the land is close to the education area. Where the function of the building is to provide information or knowledge needed by the community, especially students.

### **Problem-solving Method/Design Stages**

The design problem-solving method used in this Public Library design is the descriptive method. The data obtained will be processed and used as a reference in designing.

a. Method of Data Collection

When gathering data, there were two ways that the data was gathered :

- i. Primary Data: Make observations by conducting direct surveys at the selected location to obtain the required data and documenting the selected site conditions as real data used for site analysis purposes.
- ii. Secondary Data: Information gathered from carrying out research on literature and comparisons

b. Method of Analysis

Analysis of users, activities, space program, site, structure, and utilities.

c. Final Ideation

Following analysis, a theoretical framework is developed as a concept—a way to solve the issues—that would eventually lead to several design approaches.

## **4. RESULTS**

The research location was conducted in Balige, precisely on T. B. Silalahi Street, Balige District, Toba, North Sumatra, Indonesia.



**Figure 1** Site Location

The design of this public library has a total land area of around 10,365 m<sup>2</sup>. The existing condition of the design site is vacant land.

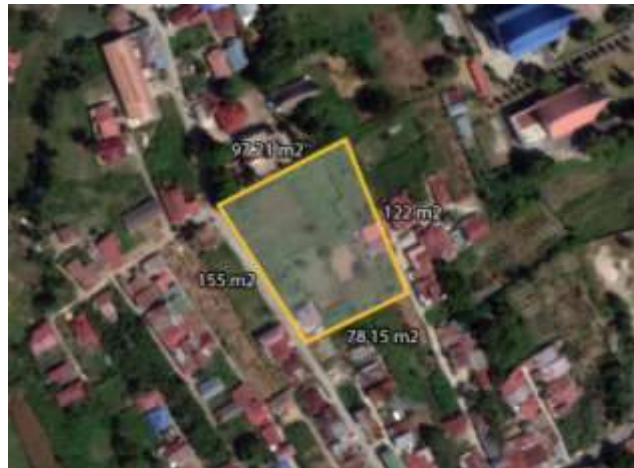





Figure 2 Site Borderline

## Site Analysis

Table 2 Site Analysis

Analysis Aspects	Figure	Result
Accessibility		<ul style="list-style-type: none"> <li>Jl. T. B. Silalahi is the primary entrance (1). Being on the front side of the design site and frequently traversed by cars makes this route more accessible.</li> <li>The entry from number (2) is a narrow alley measuring <math>\pm 3</math> meters. Access to the site is prohibited by this road since it will interfere with the privacy of the alley's occupants.</li> </ul>
Land Use		<ul style="list-style-type: none"> <li>The land use on the north side of the site is a public cemetery, namely the Sisingamangaraja XII Tomb. On the east side of the site, the land use is office buildings, namely the Toba Regency DPRD Office and the Toba Regency Regent's Office.</li> <li>The land use on the south side is residential, namely residents' houses. On the west side of the site the land use is residential and commercial.</li> </ul>
Vehicle Circulation		<ul style="list-style-type: none"> <li>The main circulation path to the site is Jl. T. B. Silalahi on the west side of the site with a width of 5 meters. This road has a fairly low density and is two-way.</li> <li>On the south side, the site borders Gg. Merpati which is <math>\pm 3</math> meters wide. This road has low density because it is usually only traveled by people who live in this alley.</li> </ul>

<p>Pedestrians</p>		<ul style="list-style-type: none"> <li>The pedestrian path on Jl. T. B. Silalahi is only on one side, which is opposite the site but with an unkempt condition and also no lighting, giving the impression of being unsafe for pedestrians, so there is a need for adequate pedestrian facilities in the site area.</li> </ul>
<p>View</p>		<p>Of the seven views, the most interesting view to see is the view towards the west and east of the site, so that this side can provide a view that can be seen and enjoyed by users from the site area.</p> <p>The view most often seen by people from outside into the site is through Jl. T. B. Silalahi, because this road is the entrance to the building. So the front facade of the building must be made as attractive as possible.</p>
<p>Vegetation</p>		<p>The site is an empty green field and residents' houses. The existing condition of the site on each side does not have much vegetation / trees, therefore in order to give a cool and beautiful impression, some vegetation will be made, especially on the west and east sides which function as a shade for buildings and outdoor activities.</p>

## Design Concept

### A. Basic Concept

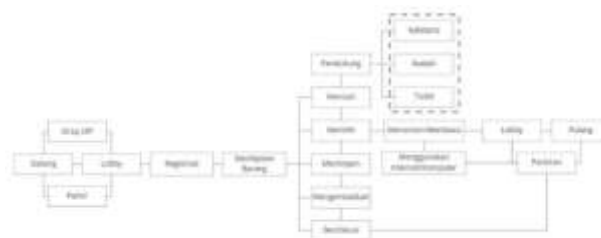
The design of the Public Library aims to provide access to books, digital media, educational materials, and other knowledge for the community, especially students in Balige City.

The Public Library building applies the theme of contextual architecture in its design. The application of contextual architecture aims to create buildings and spaces that blend with the surrounding environment, which are responsive to the needs and values of the local community.

### B. Programming Concept

The concept of the activity system in the Public Library is the flow of activities in utilizing the indoor and outdoor spaces carried out by the perpetrators of the activity. The following is an analysis of activities carried out by users of the Public Library building :

- Visitor :



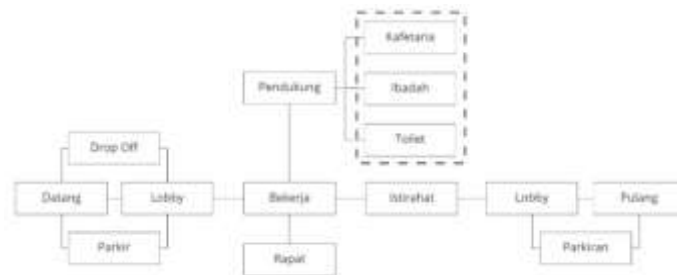
**Diagram 1.** Visitor Activity System

- Organizer



**Diagram 2.** Organizer Activity System

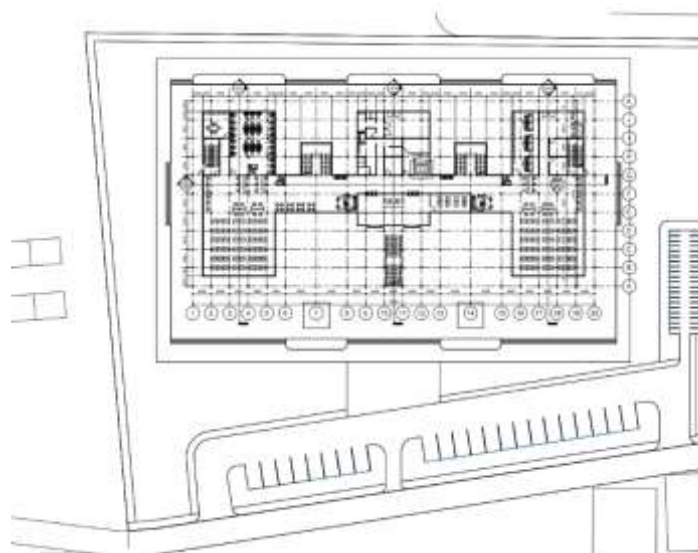
- Service



**Diagram 3.** Service Activity System

### C. Site Zoning and Circulation Concept

The building mass is located in the center of the site, with T. B. Silalahi as the main access into the site. The area around the building has a green area as an absorption area and also cooling. At the front of the site there is a car parking area, and on the right of the site there is a parking area for motorcycles.



**Figure 3** Site Circulation



#### D. Façade Concept

The concept of the building facade is taken from the shape of Pustaha Laklak, which is one type of traditional Batak manuscript originating from the Batak community. The folded shape of Pustaha is applied to the library building which can be seen from the roof.

The exterior of the library is characterized by a combination of modern and traditional elements, including a sleek glass facade that allows natural light to flood the interior, as well as local materials such as wood. The design considers Balige's tropical climate, creating a ventilation system to maintain a comfortable temperature and reduce energy consumption.



**Figure 4** Facade Concept

#### 5. CONCLUSION

The design of Public Library with contextual architecture approach in Medan City, located at Jl. T. B. Silalahi, Kec. Balige, Toba, North Sumatra, is a building that serves as a source of information and knowledge. Various kinds of resources are available in the library, such as books, magazines, reference books, and others. Libraries give people access to information or materials that are not easily accessible elsewhere.

Libraries also play an important role in a city to promote education. Libraries provide a wide variety of reading materials, including books for children, academic materials, and all general groups.

In the design of this library, the theme of contextual architecture is applied, namely by using Batak ornaments in the facade of the building.

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