The development of an arts centre with the application of futuristic architecture

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Abstract. Art is a culture that was born from human freedom of expression. One type is contemporary art, which is the development of art that is affected by the impact of modernization, but contemporary and modern are two different things, because contemporary continues to keep up with the times. Appreciation for art in Indonesia has recently been appreciated both at the national and international levels, art appreciation is shown by the many art activities held, this has resulted in many artists being required to hold their work so they need a place such as an art gallery building so that the public can understand the activities contained therein. and can enjoy the art exhibition. The Contemporary Art Gallery was built to help artists show their work. This building was built with a futuristic architectural design, namely a building style whose planning does not look to the past but to the future, this can be seen from the shape and materials used which have high hi-tech. The appearance of the building is made expressive as the hearts of the artists can be seen from the spatial processing, forms and games of building facades.

1. Introduction

Art is the skill of making quality works (in terms of refinement, beauty, and so on). Art can also be defined as works that are created with extraordinary skills, such as dance, painting and carving. Art is a creation that can create a beautiful sense for those who see, hear, or feel it [1]. Many community arts are in the form of visuals that can create a sense of beauty that is created by members of the community, which results belong together. Art can be transformed into 5 (five) natures, namely: art as a skill (art), art as a human activity, art as a work, art is limited to fine art, and art that can be seen (visual art) [2][3]. Art can be interpreted as a work that is created with extraordinary skill, which can evoke the sense of beauty that we get visually [4]. In designing this art center, the definition of art is more towards art, which is a work that can be enjoyed visually and non- visually, both in the form of activities and crafts that are created and developed to be enjoyed by the whole world community [5]. The art center is the base of all activities related to art both visually and non- visually that can attract attention from the surrounding area [6].

Contemporary art can be said to be a discourse in the practice of art in the West, whose practice refers to the tendencies of the postmodern period. This tendency indirectly implies an anti-modern discourse.
in art. This is because one of the paradigms of the emergence of postmodernism is one that rejects modernism. Modern characteristics that are being rejected include the spirit of universalism in culture, collectivity, turning back on tradition, promoting technology and individuality [7]. Apart from that, this is also a rejection of Western culture which was still dominant.

Futuristic has a meaning that is leading or towards the future. A futuristic image in a building means an image that impresses that the building is oriented towards the future or the image that the building is always up to date with the times shown through the building's expression [8]. Futuristic architecture is an early 20th century architectural form born in Italy, characterized by strong chromaticism, long dynamic lines, indicating speed, motion, urgency and sophistication. Futuristic architecture forms new concepts of art based on speed, something they consider essential for modern life [9]. Futuristic interests are something new, and also, technology is all about. Another thing is that they are very determined to get rid of the past. In a futuristic art gallery, expressive performances can invite people's curiosity about the function inside the building [10]. Thus, it will attract public interest to watch art exhibitions held or exhibited and increase public interest (enthusiasm) for the existence of art.

The development of art in Indonesia, especially fine art, has been identified since the early days of culture, which is called primitive art, to contemporary art today. Nowadays, the appreciation for art, especially Indonesian fine arts, is quite good, at the national and international levels. Appreciation for art in the country is marked by the number of art activities held, in the form of exhibitions, bazaars, and seminars. an art gallery that is representative and can accommodate all activities and needs in it, which includes various functions of the showroom (as a place for exhibitions, collecting, conservation, and buying and selling of goods), an information center, a performance/festival venue, a workshop, warehousing of goods, cafeteria and various other functions and supporting facilities.

The purpose of this research is to obtain a formulation of planning and design concepts as a basis for designing the Contemporary Art Gallery building to be able to accommodate exhibition / display activities and interactions with exhibition materials. The realization of the results of building design considers the negative environmental impacts of buildings with efficiency and moderation in the use of materials, energy, and development space for the ecosystem at large.

2. Methods

Studying sources of precedent regarding the center of contemporary arts, studying references regarding the application of natural, cultural, building and spatial potential in and out of architecture books, architectural magazines. Using the conclusions from the literature review that is linked to the results of direct site observations in the field to see its potential, trends in environmental conditions which are strengthened by site documentation, and taking aerial photographs to complement the surrounding conditions.

The results of the literature review with the conditions of field observations are integrated with the conditions of the buildings around the site that have been built, and those associated with the project. All of the above considerations are supported by urban planning regulations with due regard to green environmental principles. Meanwhile, the project location plan is in South Jakarta with a land area of 16,000 m². Of the day after tomorrow, the land used for building or built-up land is 4,856 m².

3. Results and discussion

3.1. The basic concept and the concept of zoning

The basic concept is the basic idea in designing. The concept that is applied to this contemporary art center building is the application of futuristic architectural concepts, namely leading or towards the future. Zoning is designed with a combination of dynamic elements as an adjustment to the basic futuristic concept. In designing this art center building, zoning is divided into two processes, namely zoning the site and zoning the building mass. Zoning on site and building mass includes: public zone, private zone, and semi-public zone (Fig. 1).
3.2. The application of the green concept to the design
It functions as a control for the light that enters the office room and meeting room, as well as an attractive display for visitors because the module is always changing according to the light intensity recorded by the sensor. Sensors are placed on the facade of the building that can monitor the light and air conditions needed by a room. This control system is used to monitor the amount of light and temperature in each room so that it can control or reduce the need for excess light and room temperature through the facade module.

Smart glass facades indicate an ability to respond to changing natural environmental conditions according to time of day or throughout the year in such a way as to reduce primary energy requirements for heating, cooling and natural lighting which in turn will contribute to environmental conservation. The parking system is implemented by integrating sensors installed in the parking area to find out which parking blocks are filled and empty. The parking area is laid out in blocks to achieve the planned level of order. If the sensor receives data on an empty slot in the parking area, then the empty slot will automatically turn on the indicator light indicating the slot is empty. Conversely, the indicator light will go out when the parking slot is filled with parked vehicles.

3.3. Patterns between spaces
The patterns between spaces are very influential on visitors, as circulation and make visitors comfortable in accessing each room function in the building. On the first floor of the building, there will be rooms, such as the main lobby, performance space, exhibition space, meeting rooms, galleries and retail, as well as a cafeteria. The performance room and exhibition hall are located at the back of the building, because they are part of the private zone and access to the space must be by ticket in order to create order in their use.

On the second floor plan, there are rooms with gallery and retail functions, prayer rooms, cafeterias, and meeting rooms. Galleries and Retail are also on the second floor. Access to the second floor gallery and retail via the main stairs and special stairs located on the first floor gallery and retail. In addition, the gallery and retail are on the second floor next to a mushalla. Mushalla is divided into two rooms, which are distinguished by male mushalla and female mushalla.

3.4. The concept of form and pattern of achievement circulation
The shape of the building is in accordance with the futuristic architectural concept developed, namely dynamic facades, technological innovation, and environmentally friendly. The circulation system and the achievement of the outer area of the building are one entrance gate and one exit gate with four categories of circulation paths. For four-wheeled visitors after entering the site, they can park the vehicle in the front parking area and can continue to the basement parking. Two-wheeled vehicles that will park are directed to the basement floor. Meanwhile, for public transportation (taxis) that simply raise or lower passengers, they are directed to the drop off zone, to be precise in front of the main lobby. See figure 2 and 3 below.
Figure 2. Alternative 1 (left) and alternative 2 (right) building mass composition.

Figure 3. Contemporary art center design concept.

3.5. Utility system design concept
Sources of clean water are obtained using deep wells, because the coastal area allows digging wells above a depth of 100 meters. The distribution of clean water to the main mass uses a down feed system by placing water reservoirs on the roof or water tower that is specially made or at a place that has the highest height. The flow from the clean sir well to the water reservoir uses a pump. waste water storage using a large septic tank which is often referred to as a sewage treatment. The collected waste is processed mechanically.

The source of electricity in this area consists of 2 (two) sources, namely the source of electricity from PLN and the source of electricity in the form of a generator whose capacity is adjusted to the needs of the area. The power source for the generator is planned for emergencies and as an additional source of electricity. Meanwhile, there are 3 types of trash cans at the contemporary art center, namely plastic bins, organic bins and paper bins. The distribution of trash from the dumpster is a garbage warehouse that can accommodate temporary trash, which is then transported out of the art center building by garbage trucks to the landfill. The total garbage collection is carried out every day.
This contemporary Art Center building has a hydrant, sprinkler and fire alarm that operates automatically in special flammable spaces. In this art center building, fire management uses a fire protection system, which is infrastructure that is used as an effort to prevent fire prevention from spreading in accordance with building safety and security standards in Indonesia [11]. This art center is a forum that accommodates artistic activities, especially fine arts in creating and presenting works of artists so that there is communication between them artists and connoisseurs/observers of art.

4. Conclusions
The design of the building is in accordance with the futuristic architectural concept developed, namely dynamic facades, technological innovation, and environmentally friendly. The basic concept is the basic idea in designing. The concept is applied to this contemporary art center building is the application of futuristic architectural concepts, namely leading or towards the future. Meanwhile, facade movement technology functions as a regulator of light that enters the office space and meeting rooms, as well as an attractive display for visitors because the module is always changing according to the intensity of light recorded by the sensor.

Smart glass facades indicate an ability to respond to changing natural environmental conditions according to the time of day or throughout the year in such a way as to reduce primary energy requirements for heating, cooling and natural lighting that in turn will contribute to environmental conservation. The inter-room pattern greatly affects visitors, such as circulation and makes it comfortable for visitors to access each room function in the building. Furthermore, the principle of energy efficiency is applied to the use of clean water and electricity use.

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