

Interior of Church to Support Sustainable Diverse Communities

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ABSTRACT

Church generally means as a place to worship for Christian people, however church also can be a community place for society. Sustainable Cities and Communities is an aspect that pay attention to society that can adapt through the midst of changing times to population growth. This aspect can be implemented through the design of facilities and activities of Church that support the communities. This church is in residential area of Surabaya, was redesigned with the main function to worship supported by activities for communities who have problems and needs. This church's designed considering universal design that can be use to all ages user to those user with special needs. The worship area is located on two floors, third and fourth floor, with have floor layout pattern branched into one, which is the concept of this design named GotoRoyo. This concept meant a community place of various ethnicities, cultures, regions that are united to serve God, human, and the environment. And then for the facilities for communities, there're Communal area, Gymnastic room, Course Classes, and Counseling room. Digital technology is also applied to support the infrastructure and activities of church.

Keywords: church, community, interior, worship

INTRODUCTION

This project of redesigning the church is a conceptual idea from university by learning in the Interior Design and Styling Cultural Space course. This project has goal to redesigning a religious facility by using an existing real building. The design is to provide a solution and answering the problems for cultural and religious spaces with a philosophical design approach. The goals are to upgrade better activities and creating spaces for sustainable communities.

This church is redesigned with a focus on both religiosity and functionality, with considering the existing issues and needs. Sustainable design principles are implemented to meet the long-term usage and support the community's needs. The purpose is to create a space that give a sense of belonging, encourages community engagement, and also to supports the growth and well-being lifestyle of the congregation.

LITERATURE REVIEW

The Church is not only limited to people of the Christian faith; its mission and purpose are headed for the entire community surrounding the environment of the Church. The term "church" has two meanings. The first meaning is a place of prayer and ceremonial activities for Christians. The second meaning the organization of Christian believers who share the same beliefs, teachings, and worship procedures (“Gereja”, n.d., para. 1). The Church is also can be meaning the congregation itself, involving the body, soul, and spirit in doing Christian and life activities (Kusuma, 2009, p. 21).

A. Mission and Purpose of Church

The mission and purpose of the Church are directed towards the entire community surrounding the Church. These mission and purpose are achieved through activities and facilities supported and provided by the accommodating space. The Church has four missions: proclaiming the gospel, serving as a praising and fellowship community, maturing and preparing believers for ministry, and representing the kingdom of God to influence society with divine principles (Victorious Network, n.d.).

Church has three goals: Fellowship (Koinonia), Witness (Marturia), and Service (Diakonia) (Tanojo, 2020, p. 40). Koinonia activities cover various types of worship services and Sunday schools for children under 14 years old, such as Youth services, Main services, and Women's services. Marturia activities are implemented through Cell Groups, which are communities that share testimonies with others. Diakonia activities consist of counseling, healthcare, assistance to orphanages, job opportunities, and other activities that serve and help those who needs.

B. Interior Design

Upon entering a building, there is a sense of protection. This perception comes because of the presence of floor, wall, and ceiling boundaries. Interior design needs to consider the layout, furniture, and spatial style while being aware of the architectural character and its potential to modification and enhancement (Ching, 2018, p. 6). In a spacious room, the form and arrangement of furniture can divide areas, create a sense of enclosure, and determine spatial patterns. Room are organized based on how people use them. The nature of activities and habits developed in performing them influence the way interior spaces are planned, organized, and arranged (Ching, 2018, p. 17). Facilities within a space should meet the needs of human activities within that space. The interior space of a church includes of various areas that have different meanings. Liturgical spaces in a church have six different functions: gathering space, movement space, congregational space, choir space, baptismal space, and altar table space, which are essential spaces commonly found in a church (White, 2011, pp. 78-86).

The church not only supports facilities for worship activities but also support activities to fulfill the mission and purpose of the Church. All Marturia, Koinonia, and Diakonia activities cannot be supported by worship area alone; there are needs for different facilities and spaces to support these activities. All facilities and spaces need to be designed to meet the needs and activities of all users.

C. Achieve Sustainable Design

The Sustainable Development Goals (SDGs) are globally agreed-upon objectives to ensure the sustainability of life on Earth. These goals consist of seventeen different targets but share the common aim of building a greener, fairer, and better world by 2030 (“The 17 Goals”, n.d., para. 2). Religious facilities are public facilities that can contribute to these goals through SDG 11, Sustainable Cities and Communities. This aspect aims to create safe, inclusive, and sustainable cities and human settlements.

The world's situations and conditions are constantly changing with uncertain outcomes, accompanied by population growth. Therefore, it is necessary to accommodate communities in safe, affordable, and resilient cities. This aspect can be

applied through the interior design of places of worship. Protecting regional cultural heritage, reducing the negative impacts of urban environments, implementing universal design to support all users, contributing to sustainable public facilities, and adopting up-to-date technological infrastructure are all part of achieving this aspect (“11 Sustainable Cities and Communities”, n.d., para. 3-7).

METHODOLOGY & DATA

The redesign of the church's interior utilizes the Design Thinking method through five stages. These stages are carried out gradually, starting with the Understand stage and concluding with the Final Design. This project will result in design ideas in the form of a prototype concept for the church's redesign.

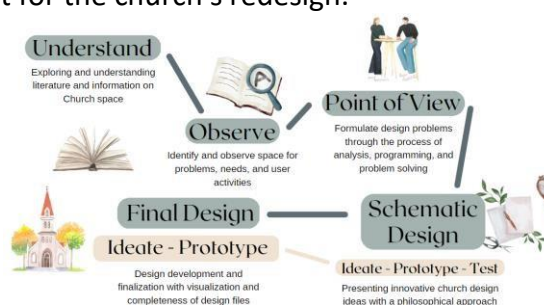


Figure 1. Design Thinking Process (Source: Writer, 2023)

A. Understand

This stage begins with exploring and understanding the literature. Literature data is explored through various sources, including books, journals, and websites. The literature topics include Cultural Space, Church, and 9 Interior Elements. The literature on the Church covers topics such as its definition, history, different denominations, church building standards, mission and purpose, worship procedures, anthropometry, symbolism and meaning, colors, and various spaces within the Church. Additionally, this stage also explores the typology of Reformation churches located in Surabaya. The church typologies considered are GKI Emaus, GKI Ngagel, GKI Manyar, and GRII Kebon Jeruk.

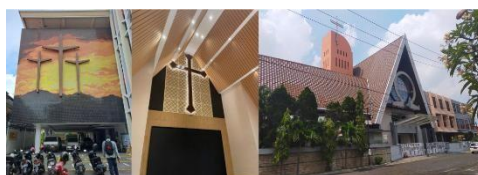


Figure 2. Documentation of Observation Church Typologies (Source: Writer, 2023)

B. Observe

Next, this stage begins by collecting existing church data. The methods employed in this stage include conducting interviews with the pastor and church officials, making observations, and gathering both quantitative and qualitative data. The church user data includes the church's organizational structure, a brief history of the church, types of congregations, spatial activity patterns, a list of active staff members, along with the church's operational hours. This stage aims to gather physical files by measuring the condition of the church's spaces and existing furniture. These physical files are then transformed into working drawings, including floor plans, section drawings, floor pattern plans, ceiling pattern plans, and mechanical-electrical plans.

C. Analysis Site

The chosen location for the church design project is the REC (Reformed Exodus Community) Kutisari Church in Surabaya, located within a residential area. The church's address is Jalan Kutisari Utara VII No.25. The church is situated in front of a main road, with motor vehicles passing by and a vehicle repair workshop located to the west of the church, resulting in potential noise disturbance inside the church. Natural lighting has been effectively utilized due to the presence of several fixed windows in the church building.



Figure 3. Analysis Site Church (Source: Writer, 2023)

The church building consists of 4 floors, with the third and fourth floors designated for worship spaces. The first floor serves as an office, supporting the church facilities and handling administrative matters. Additionally, there is a communal space located in front of the church entrance. The second floor consists of community classrooms, a balcony area, and rooms for the pastor. Service facilities such as toilets and a kitchen are located at the left end of the building. The staircase and elevator are positioned at the right end of the building. Currently, there are no existing sports facilities in the location.

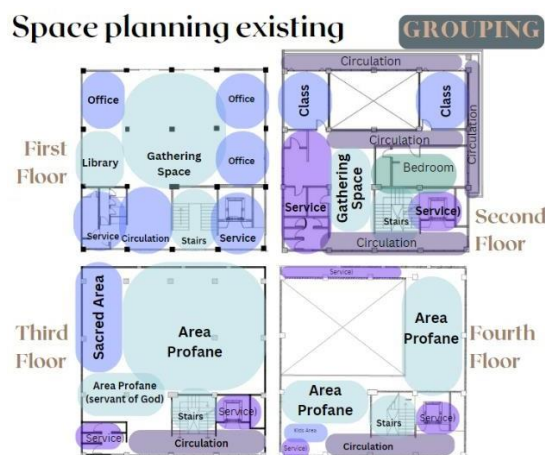


Figure 4. Space Planning Grouping Existing Place (Source: Writer, 2023)

D. Analysis User

The church is used by eight different user groups, including the pastor, staff members, congregation members, youth committee, board of directors, children, sports participants, and course class participants. There is one full-time minister, Jimmy Lucas, and two part-time staff members, Yefta and Irene. The congregation consists mainly of students, families, and parents from diverse backgrounds and varying ethnic and cultural backgrounds.

E. Point of View

In this stage, the design problems are formulated through the process of analysis, programming, and problem solving. The bubble diagram method is to determine the relationships between church room. Then, the problem-seeking method is used to make tables of space requirements and room characteristics. This stage concludes with formulating the main problem, also known as the Problem Statement. The affinity diagram method is used as the beginning process for observation and gathering the information.

PROBLEM STATEMENT

The functional problem revolves around inadequate space for activities such as aerobic exercise, Muay Thai gym, and yoga. The form-related problem lies in the monotonous appearance of the building and interior, which gives a plain impression and not showing them image of the church. The economic problem pertains to excessive electricity usage due to suboptimal AC regulation. The time issue involves the theme of the building being contemporary, but the existing design fails to reflect contemporary values.

Therefore, out of these four problems, the Problem Statement that emerges as the main issue in this church is the under advantage of space, prevent the effectiveness of daily user activities such as sports activities and Sunday school. This obstacle prevents the church from achieving its vision of becoming a "One Stop Community Center".

CONCEPT DESIGN

The main design concept of this church is called "GotoRoyo." This design concept is created based on considerations of the church's identity, vision, mission, values, image, the church community, and evaluation of the existing church building. Gotong Royong means working together or helping each other (Gotong Royong, n.d., para. 1). This value is significant for Indonesian society and serves as an important national identity that should be upheld. The concept signifies the community's meaning, where various ethnicities, cultures, and regions come together as one to serve God, fellow human beings, and the natural environment. The main concept is a combination of several concepts, namely, the third principle of Pancasila "The unity of Indonesia," Flexible Space, Engage, Intimacy Room, and Adaptive for Future Living.

A. The unity of Indonesia

Pancasila is the foundation of the Indonesian state and consists of five principles. The third principle states "The Unity of Indonesia" and is symbolized by the

banyan tree. The banyan tree reflects the unity and togetherness of Indonesia, as it has many roots that hang from its branches. This principle represents Indonesia as a unitary state with diverse cultural backgrounds (Tim Redaksi Laksana, 2019, p. 124). This concept is implemented in the layout of the floor plan and the branching pattern of the ceiling, resembling the roots of a tree coming together as one.

B. Colors and Regional Decoration

The color scheme used is monochromatic with a red accent color. The monochromatic colors used are white, gray, and black. The combination of red and white represents the symbolic identity of the Indonesian flag, as an implementation of the GotoRoyo concept.



Figure 5. Scheme Color (Source: Writer, 2023)

There are 5 types of decorative patterns used, representing the major islands of Indonesia, namely Java, Sumatra, Kalimantan, Sulawesi, and Papua. These decorative patterns are applied to the fabric of the chair seats and motifs on laser-engraved wall panels. The patterns use five motifs namely:

- A. "Sekar Jagad" represents the island of Java (symbolizing the WorldMap, motivating users to observe the beauty and diversity of the world and maintain peace) (Utama, May, 27, 2021)
- B. "Dayak" represents the island of Kalimantan (symbolizing bravery and cultural harmonization) (Fiona, October 1, 2022).
- C. "Paqtangkiq Attung II" represents the island of Sulawesi (symbolizing togetherness and kinship) (“32 Ukiran Toraja”, 2022, p. 2)
- D. "Ceplok Gayo" represents the island of Sumatra (symbolizing the beauty of living together in a peaceful society) (“Provinsi Aceh”, n.d., para. 1).
- E. "Sentani" represents the island of Papua (symbolizing strong bonds among communities and brotherhood) (“Provinsi Papua”, n.d. para. 1).

These five decorative patterns signify unity in diversity, which is also part of the GotoRoyo concept.



Figure 6. Five decorative motifs (Source: Writer, 2023)

LAYOUT PLAN

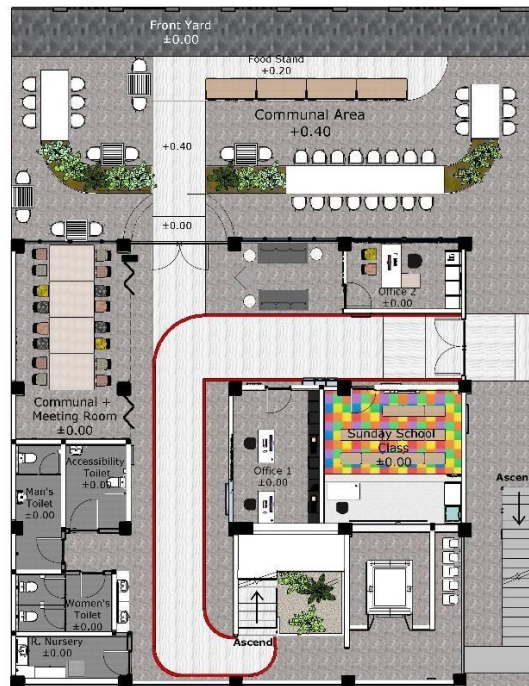


Figure 7. Layout Plan of First Floor (Source: Writer, 2023)

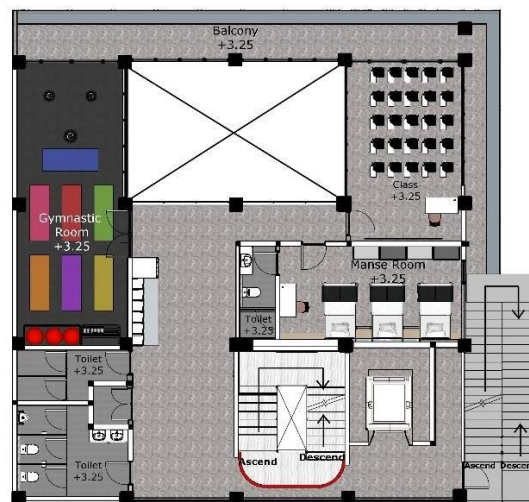


Figure 8. Layout Plan of Second Floor (Source: Writer, 2023)

First floor and second floor serve as community facilities for communal activities. First floor is designed as a public area targeting communal activities and administration, including communal spaces, offices, meeting rooms, and children's classrooms. Second Floor is designed as a semi-public area that accommodates sports facilities, adult classes, and a pastor's room.

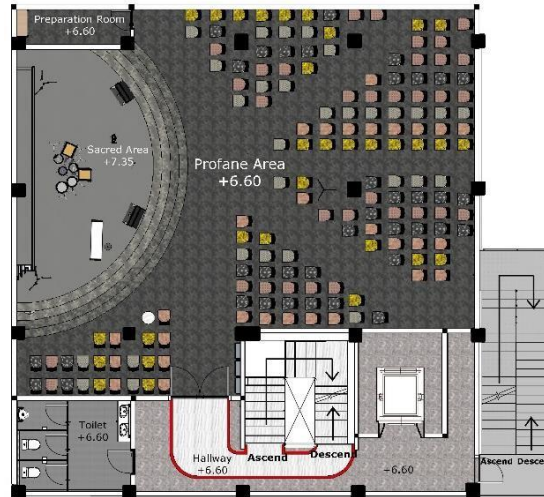


Figure 9. Layout Plan of Third Floor(Source: Writer, 2023)

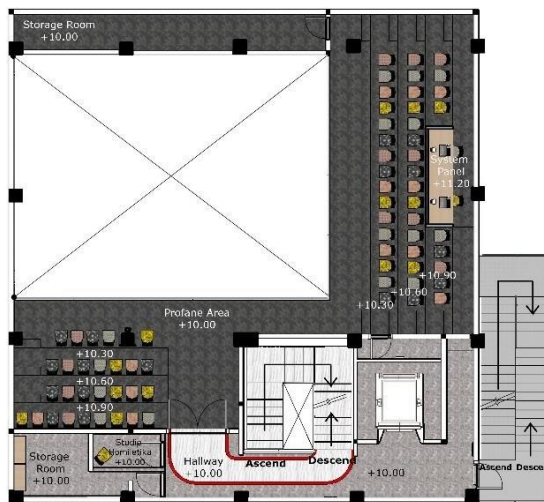


Figure 10. Layout Plan of Fourth floor(Source: Writer, 2023)

Third floor and fourth floor are dedicated to the worship facilities of the church. The layout of the worship space is designed as an open space with lightweight and easily movable seating furniture, allowing for flexibility in its usage.

FACILITIES OF CHURCH

A. Communal Area

The communal area is located in the outdoor space of the church building. This communal area provides facilities such as food cart stalls, seating areas, and plants. The layout of the communal area is based on the philosophy of spreading roots, inspired by the Banyan tree.



Figure 11. Communal Area (Source: Writer, 2023)

B. Gymnastic Room

The Sports Area is located on the second floor and accommodates activities such as Muay Thai, Yoga, and Aerobics according to the user needs. The Sports Area is surrounded by fixed windows, allowing natural light to illuminate the space during the day. It includes storage units for sport equipment and a standing punching bag for Muay Thai. Additionally, decorative wall lights are installed in the Sports Area, featuring Bible verses emphasizing the importance of physical exercise.



Figure 12. Gymnastic Room (Source: Writer, 2023)

C. Course Classes

There are two types of Course Classes: one for teenagers and adults, and another for children. The Sunday school classes feature wallpaper with illustrations of children and Jesus. The space is flexible, allowing various activities for children, such as drawing on a whiteboard, talent shows and theater performances based on Bible stories, and individual learning activities at each folding table by the individual.



Figure 13. Sunday School Class (Source: Writer, 2023)

The classrooms for teenagers and adults are situated on the second floor, surrounded by fixed windows that provide ample natural light during the day. The rooms can accommodate up to 20 people and are designed with flexibility in mind to accommodate various activities. It can be used to course classes, Cell Groups, counselling, and many more. They do not rely on artificial lighting during daytime hours.



Figure 14. Classroom (Source, Writer, 2023)

D. Worship Area

The division between the sacred and profane areas follows the existing structure of the building. The sacred area is designed with a psychological color scheme, where the dominant color is white, while the profane area is predominantly gray. This is intended to direct the focus of the congregation towards the sacred area during worship. The stairs encircle the stage, the elements forming the space are of a darker color, and there is no podium. This is to aiming to create a sense of closeness and eliminate any perceived distance between the congregation and God, in line with the concepts of intimacy and engagement.



Figure 15. Worship Area (Source: Writer, 2023)

On the 3rd floor, in the profane area, the arrangement of seats resembles branching, similar to the design of the dropped ceiling, which is an implementation of the Banyan tree concept.

E. Digital Technology

Digital technology supports the infrastructure of activities in the church. This includes electronic devices and LED screens to support church activities, meetings, and classrooms. It also enables recording and live streaming, allowing activities to be conducted in a hybrid manner. Additionally, there are TV screens on each floor of the staircase to disseminate information and promote community activities, making it easy to spread information and providing engaging content to overcome boredom when congregants need to use the stairs from the third or fourth floor.



Figure 16. Stairs (Source: Writer, 2023)

F. Universal Design

The church design takes into consideration the aspect of universal design that supports all users or church congregants. The presence of ramps at the entrance and an elevator allows wheelchair users to access the church.



Figure 17. Main Entrance (Source: Writer, 2023)

The toilets on the 1st floor accommodate men, women, seniors, or wheelchair users, as well as a nursery for mothers and children. The Sunday school class for children is located on the 1st floor, adjacent to the entrance, to facilitate easy access for children and ensure their safety. Additionally, prominent signage and wayfinding are implemented to be easily visible and readable by users, making it convenient for them to navigate to their desired areas.



Figure 18. Instruction of Wayfinding (Source: Writer, 2023)

CONCLUSION

The design concept of this church is based on a philosophical understanding of the surrounding community, considering sustainability and technology for long-term use. To achieve sustainability within the community, it is primarily achieved through the implementation of the design concept in the church's interior. The design concept, derived from an understanding of existing issues and conditions, aims to provide a design that meets the needs of the community. The implementation of sustainability design can be applied through the necessary facilities, design considerations that cater to a wide range of users, and sensitivity and action towards the surrounding environment. Designing with a focus on future use within a specified timeframe is also crucial. The relationship within the community can be maintained and strengthened through design considerations that promote community engagement and psychological well-being.

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