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Revitalization of Colonial Buildings as Community Centre: Case Study of the Former Radio Cililin Building, Bandung, West Java, Indonesia

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Abstract

The historical remnants of the former Cililin Radio Transmitter area comprise the Cililin Radio Transmitter Building and the remnants of the Transformer Building, which served as tangible artifacts from the Dutch colonial era when it functioned as a radio transmission station. These remnants hold profound historical and archaeological significance, representing a bygone communication technology era. Cililin Radio Transmitter Building is interwoven with pivotal historical events, including the sovereignty transfer from the Netherlands to Indonesia in the Cililin region, and marks the inception of SMA N 1 Cililin (State Senior High School 1 Cililin). These structures' condition and surroundings were neglected, rendering them susceptible to deterioration. This led to the restoration and revitalization of this area to safeguard its historical value and make it accessible to the community. This design research aims to revitalize the former area. Cililin Radio Transmitter is a community center, where the process begins with studies related to revitalization to obtain design parameters that can be applied to the case. Therefore, this research and design will transform the former Cililin Radio Transmitter Area into a vibrant community center. A creative metaphorical approach was employed, which ensured the preservation of the buildings, amplification of the historical essence of the site, and the provision of community-oriented facilities. A qualitative method was used to analyze the objects through field surveys connected with literature related to revitalization and metaphorical architecture. The results showed that the adaptation and addition of new functions to the study objects rejuvenated the environment and accommodated the community's social activities.

1.0 INTRODUCTION

The need for long-distance communication facilities driven by war demands compelled the Dutch East Indies Government to establish its comprehensive apparatus. This imperative necessitated the construction of a significant telecommunication center, with radiotelegraphy emerging as the most appropriate solution (Bandung Regency. This station was established in collaboration with the German telecommunications company Telefunken and commenced official operations in 1914 under the same name (Sudarman, 2014). It was later changed to NIROM (Nederland Indie Radio Omelanden), also recognized as the colonial radio transmitter, in 1923. During this era, additional facilities were erected around the radio transmitter building,

such as official residences, transformer buildings, or underground structures used for electricity regulation, temperature control, sound damping, and housing diesel generators as shown in **Figure 1** (Sudarman, 2014). Due to technical considerations, NIROM was relocated to Rancaekek and Dayeuhkolot in 1936, leading to the transfer of the extensive radio land of 3,885 hectares to the Dutch Department of Agrarian Affairs (Sudarman, 2014). On January 1, 1950, the transfer of sovereignty from the Netherlands to Indonesia encompassed all regions, and its transition in the Cililin area was commemorated through a formal ceremony held within the courtyard of the Radio Building (Sudarman, 2014). From the time of this sovereignty transfer till 1972, the radio transmitter building served as a military headquarters housing eight battalions, with the final one being Battalion 327 (Permana et al., 2020). Subsequently, in 1970, the building briefly served as a school facility (Sudarman, 2014).

Figure 1. (a) Radio transformer building (left) and transmitter building (right) (b) Official residence (Dientswoning) Source: Radio Malabar: herinneringen aan een bloeiende tijd 1914-1945 / Klaas Dijkstra. - Groenlo : Emaus, 2006

The historical significance of the former Cililin Radio Transmitter Area holds great cultural value for past and future generations (Australia ICOMOS, 1999). It is vital to protect cultural sites, as well as ensure they are not neglected or left in disrepair (Australia ICOMOS, 1999). According to Law No. 11 of 2010 concerning Cultural Heritage, buildings with special historical, scientific, educational, religious, or cultural meaning should be conserved(Nurrahman et al., 2022). The presence of cultural heritage in a region reflects its norms and creative expressions (Saraswati, 2015). The former Cililin Radio Transmitter Area possesses significant historical values that should be safeguarded, including:

a. Serving as an industrial cultural heritage of telecommunications, particularly in the Cililin region

During the Dutch East Indies government era, the Cililin Radio Transmitter Station was a significant long-distance telecommunication facility (radiotelegraph) as in **Figure 2(a)**. The government collaborated with Telefunken, a German radio and television company, to establish a provisional transmission station in Java (Dijkstra & Arthur O. Bauer, 2006). This station was set up in Cililin village and officially started operating as a telecommunications building named Telefunken in 1914 (Sudarman, 2014). In 1919, a critical testing phase involved the ship *De Zeven Provincien,* which sailed from Indonesia to the Netherlands through Panama. The aim was to ensure the successful reception of signals transmitted from the Indonesian radio station in Cililin as in **Figure 2(b)**. A receiving apparatus equipped with an antenna was positioned in the city of Blaricum or Blaricummermeent in the Netherlands. On June 7, 1919, the transmitted signals from the Cililin radio station were successfully received for the first time (Djayaningrat et al., 1980). However, the sound quality was weak, and according to reports from that time, the transmission frequency varied, leading to unclear

signals (Dijkstra & Arthur O. Bauer, 2006). This event marked a significant milestone in the history of long-distance radio telegraphy during that era (Djayaningrat et al., 1980).

(a) (b)

Figure 2. (a) High-frequency machine from Telefunken on the radio station (b) Machine and shortwave transmitters on the radio station in Cililin
Source: Radio Malabar: herinneringen aan een bloeiende tijd 1914-1945 / Klaas Dijkstra. - Groenlo : Emaus, 2006

In 1923, the reins of Telefunken were handed over to Ir. Van Meiyer oversaw its transformation into NIROM (Nederland Indie Radio Omelanden), serving as a radio transmitter within the colonial territories (Sudarman, 2014). During the NIROM era, a series of supplementary facilities were erected, including official residences, an underground structure for regulating electricity, temperature control, sound damping, and a diesel building (Sudarman, 2014). As time progressed, the operational demands of the facility became burdensome for the government, prompting the decision to relocate it to Rancaekek and Dayeuhkolot in 1936 (Sudarman, 2014). Furthermore, the extensive 3,885-hectare radio land was transferred to the Dutch Department of Agrarian Affairs, a process that unfolded between 1936 and 1938 (Sudarman, 2014).

The former Radio Transmitter Station in the Cililin area played a pivotal role in the telecommunications industry during the era of the Dutch East Indies government. It was historically significant in long-distance communication at that time, with signals bridging the gap between Cililin and the Netherlands. The aspects preserved in the Cililin Radio Transmitter site are intricately linked to past technology and remnants of industrial culture, encompassing historical, technological, social, architectural, or scientific values. This classification aligns with the concept of industrial, cultural heritage. It covers physical remnants rooted in the industrial and technological history of the bygone period (Sutestad & Mosler, 2016). The extant structures in the former Radio Transmitter Station Cililin, such as its building and that of the Transformer, aptly fall under the category of industrial, and cultural heritage due to their historical connections with communication technology, particularly during the Dutch East Indies era. The inseparable historical value embedded within the confines of the former Radio Transmitter Station Cililin area is undeniably relevant and calls for its preservation.

b. It has a special meaning in the history of the struggle for and defense of independence and education in the Cililin region

The location of the Cililin Radio Transmitter establishment holds a historical record of the struggle and quest for independence in the region. Following the proclamation of Indonesian independence in October 1945, former PETA military members working in the radio station returned to Cililin. They took control of the Radio Transmitter area and its building, becoming the core of the People Security Agency (BKR). This group led the

local resistance against the Japanese forces and NICA (Sudarman, 2014). On January 1, 1950, sovereignty was handed over from the Netherlands to Indonesia nationwide, and a significant ceremony making the transfer of power took place in the Cililin Radio Transmitter Building. Subsequently, from January 1, 1950, until 1972, the building housed eight military battalions, with the last unit being Battalion 327. In the post-independence period, the Cililin Radio Transmitter played a significant role by facilitating the establishment of SMA N 1 Cililin on January 1, 1967. The use of the building as a school was sanctioned in 1970 by Major General Sugih Arto, the Commander of Battalion 22 Jaya Pangrengot (Sudarman, 2014). While the exact buildings used as schools in 1970 were not entirely documented, current findings indicate that the official residence structure was selected for this purpose. This facility currently serves as the premises for SMA School 1 Cililin.

The former Cililin Radio Transmitter area holds a unique and significant historical value, encapsulating a profound bond between the people and place, known as an association. This association encompasses social or spiritual values and cultural responsibilities inherent to a specific location (Australia ICOMOS, 1999). The area shares a deep-seated social, spiritual, and cultural connection Graft et al., 2018) with the people of Cililin, rooted in historical events of struggle and independence, as well as the establishment of the SMAN 1 Cililin. This educational institution holds profound meaning and tightly woven community ties, further enhancing the connection. Preserving this historical value is a pivotal undertaking, poised to impart valuable lessons to future generations. The preservation of historical structures fosters a timeless connection between the present and the past, instilling pride and a sense of identity as a nation (Sidharta & Budihardjo, 1989).

Currently, the Cililin Radio Transmitter is no longer functioning, leaving only physical evidence of its past existence in the form of the radio transmitter, transformer buildings, and official residence as can be seen in **Figure 3**. These three buildings are in different physical conditions and are used for various purposes.

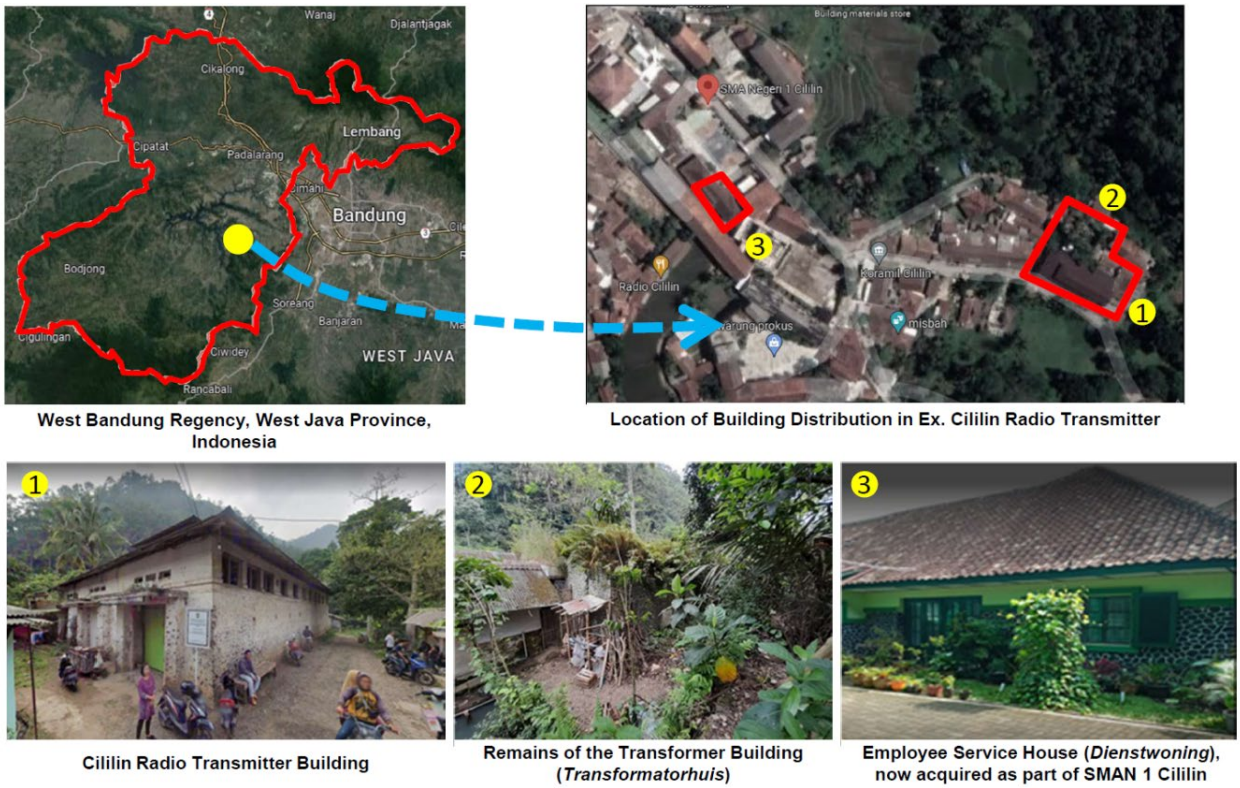

Figure 3. Location map of ex. Cililin Radio Transmitter and its building distribution

The official residence remains in the best condition among the three buildings and currently serves as a school under SMAN 1 Cililin. The former radio transmitter structure, Bedrijf, presently known as the Cililin Radio Transmitter Building, has been designated a cultural heritage facility. Despite maintaining a relatively intact structure, it has suffered from a lack of proper maintenance. Some windows are missing, and certain components, such as doors and floors, have been replaced. According to interview sessions held with the local community, the Cililin Radio Transmitter Building was previously repurposed as a tofu factory and later considered for use as an oil packaging facility as can be seen in **Figure 4**. This plan was initially supported because it would provide job opportunities for the local community, thereby increasing their income. It was eventually abandoned, resulting in its present suboptimal role as storage for local goods and vehicles. The nearby Transformer Building presents a more concerning picture, as the lower structure remains unkempt, neglected, and overgrown with wild plants. Supposing this situation is left unattended, both buildings might experience further physical deterioration due to a lack of maintenance and vulnerability to age and weather-related damages. The non-physical aspects, particularly their historical significance, could fade with time due to evolving eras and changing societal contexts.

Figure 4. Existing Physical Condition of Cililin Radio Transmitter Building and Transformer Building

The remaining physical remnants bear significant historical value and an inseparable bond with the Cililin region. This is related to its original function as a radio transmitter facility, which also led to the naming of a street in the area, Jalan Babakan Radio. Moreover, this location holds a special historical significance in the struggle of the nation for independence in the Cililin region, as it was where sovereignty was transferred from the Netherlands to Indonesia. By recognizing these aspects, it is important to implement focused efforts for arranging, preserving, and potentially repurposing these historical radio transmitter buildings. The neglect

of such historical sites poses a risk of further deterioration without substantial intervention, ultimately leading to a decline in their functional, visual, and environmental qualities (Handoko, 2011).

One method of preserving historical areas is through revitalization, an effort to develop cultural heritage for preservation, particularly to reinforce its important values (Guidelines for the Revitalization of Cultural Conservation, 2013) and infuse new vitality into existing or mundane spaces, to create an attractive site (Ali & Qi, 2020). This approach aligns with the Guidelines for Cultural Heritage Revitalization in 2013, which emphasizes the importance of reinforcing the inherent values of heritage. Additionally, the revitalization process plays a pivotal role in averting the deterioration or decline in the quality, potential, physical aspects, and essential values of cultural heritage while simultaneously optimizing its use by the community. Integral to this endeavor is active community participation, considered a cornerstone of heritage preservation and environmental improvement (Hsiao, 2022). While cultural heritage might not generate direct economic benefits (Hsiao, 2022), effective management can foster social cohesion, environmental betterment, and economic advantages for local communities (Mogomotsi et al., 2018). The revitalization of the former Cililin Radio Transmitter area can be transformed into a dynamic community hub for educational, social, and recreational activities. It can also attract historical tourism potential, generating economic prospects and enhancing the well-being of the local community. This aligns with the hopes of the community, which desires approved utilization involving local labor and substantially contributing to the economy.

To achieve the utmost potential in design concepts (Mogomotsi et al., 2018), it is imperative to understand the past before building the future (Piotr, 2020). The revitalization of the former Cililin Radio Transmitter area was also motivated to preserve its historical value as an educational resource passed down from one generation to another. This invaluable historical essence is seamlessly conveyed by applying a metaphorical approach to the design of the new community center facility, allowing it to be subtly and genuinely appreciated by the residents.

The main purpose of this study is intended as design research. It begins with researching how the former Cililin Radio Transmitter area has been transformed from its history of development. Then try to revitalize it by adding a new function as a community center, using a creative metaphorical design approach. The goal is to effectively use the historic buildings alongside the addition of new community center facilities. This endeavor aims to revitalize the locale, harness its tourism potential, and enhance the overall well-being of the community. The study is limited to the former Cililin Radio Transmitter area (Cililin Radio Transmitter and Transformer Buildings) and its surrounding environment. The official residence was excluded, given its established function as a school.

Due to the significance of its historical value and the potential for community engagement and tourism, the revitalization effort becomes imperative. It serves a dual purpose, namely the preservation of cultural heritage buildings while providing an opportunity for the local community to develop its environmental potential. This process also fosters enhanced well-being and sets the stage for future economic growth.

2.0 RESEARCH METHOD

This study adopted a qualitative approach (Creswell, 2013), using a descriptive method to investigate the transformation of the former Cililin Radio Transmitter area into a community center. The main focus was on employing a metaphorical design approach. Data collection consisted of both primary and secondary sources (Groat and Wang, 2013). Primary data was collected through on-site surveys, documentation, and interviews with the surrounding community. Field surveys were conducted to assess the current physical

conditions of the study area, including measurements that were later simulated using AutoCAD and Sketchup software. Apart from the measurements, Interviews were conducted to gain insights into the social dynamics and perspectives of the community regarding the potential use of the study area. Meanwhile, secondary data was obtained through literature studies encompassing cultural heritage, historical area revitalization, community centers, and metaphorical design. The analysis phase involved linking the primary data with that of the secondary, particularly focusing on theories related to revitalization and community centers. A creative metaphorical approach was adopted in alignment with the architectural metaphor theory for the design aspect.

The initial step focused on physically identifying the Cililin Radio Transmitter and the Transformer Buildings. This step was used to determine the appropriate restoration and utilization methods, integral to both the revitalization process and community center support. Subsequently, potential activities and criteria for designing and conceptualizing the new community center facilities were identified.

Metaphor is one channel of architectural creativity that views buildings and concepts as if they were something else that requires more concrete knowledge fundamentally and systematically. Metaphors are linguistic devices that map one domain of experience to another to give meaning to concepts by enabling us to make sense of new experiences in the context of past experiences. Metaphor is included in the creative method of design. Through metaphors, the architect's communication about the "feel" of a certain type of building can become more explicit. Metaphor is a design method that transfers the message that the architect wants to convey into his work. The message conveyed can be in the form of identification/ operationalization, symbolism, meaning, ideology, or vision.

Phenomenologically, architecture is a carrier of meaning and content (historical, educational, symbolic) through how form, space, and material solutions are used (Wilczek, 2020). Meaning means how a place defines, indicates, evokes, or expresses something, related to tangible aspects such as symbolic properties and memory (Australia ICOMOS, 1999).

In the revitalization of this non-conservation zone, the design of the community center carries a historical meaning that is transferred to a symbolic visible aspect, namely the mass composition of the new community center building. Historical and symbolic meanings will be created through the planned arrangement of forms and spaces that take the idea of connecting or connecting as the theme. Connecting here means connecting: past historical values through the form of buildings with the present and future related to the community and society as building users so that people can interpret the historical value of a place through this method in a subtle way as can be seen in **Figure 5**.

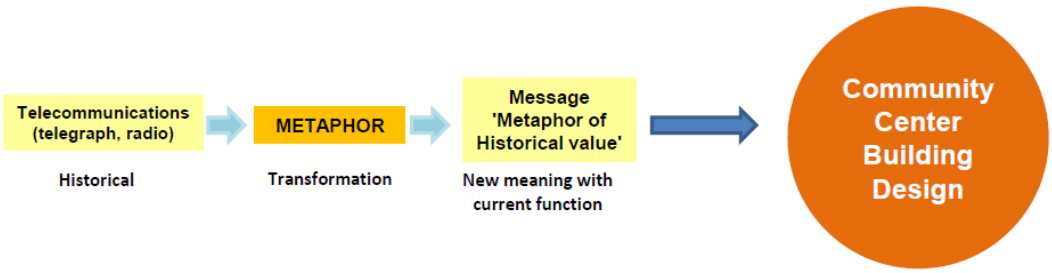

Figure 5. Transfer of historical value to community center building design

The transformation of the idea of 'connecting' through the metaphorical method into mass compositions and spatial programs is explained in the following **Figure 6**.

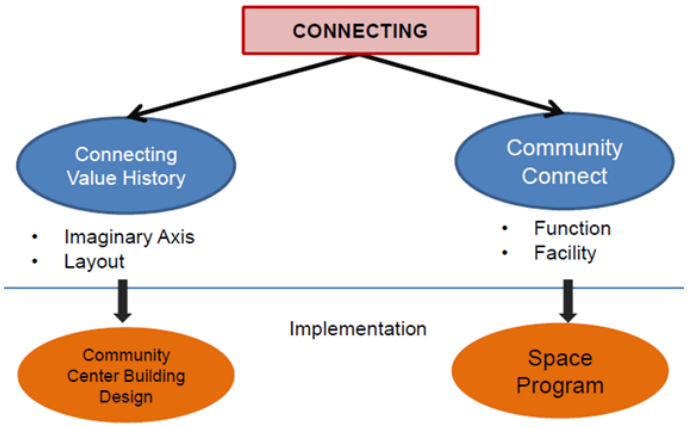

Figure 6. Transformation of the idea of 'connecting' through the metaphorical method into compositions of mass and space programs

3.0 RESULTS AND DISCUSSION

3.1 Revitalization of the former Cililin Radio Transmitter Area

Based on its coverage, the revitalization area is divided into two, namely the Conservation and Non-Conservation Zones. The Conservation Zone includes the Cililin Radio Transmitter Building area and the ruins of the Transformer facility. These elements are subject to regulations guiding the use of cultural heritage buildings. Conversely, the Non-Conservation Zone encompasses the vicinity around the conservation region. This area consists of empty land that can be harnessed for the planning of new facilities, bolstering the revitalization efforts of the region. This zone offers greater flexibility, as it is not bound by the rules governing the use of cultural heritage buildings as can be seen in Figure 7.

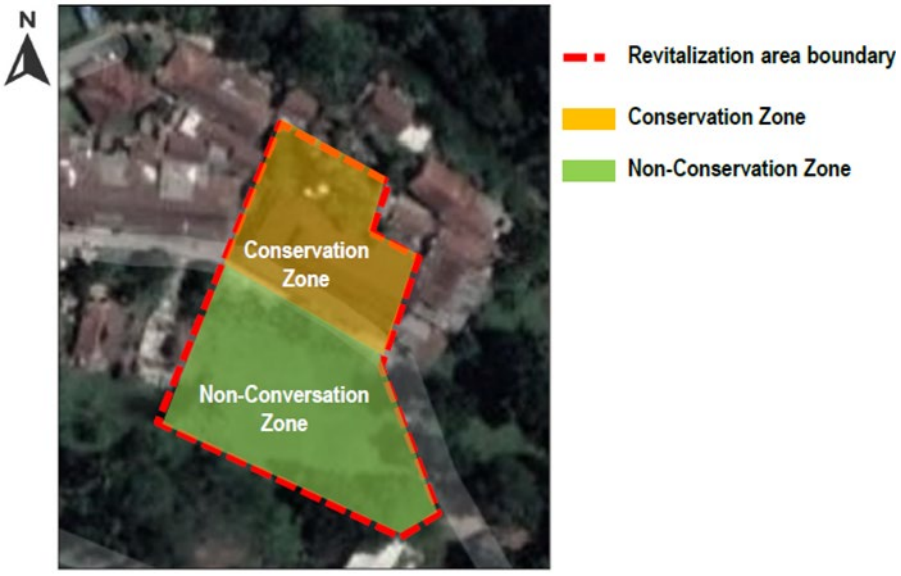

Figure 7. Zoning in the Revitalization Area

A. Conservation Zone Revitalization

Preserving cultural heritage buildings is paramount, as they connect the community to its historical roots (Othman & Mahmoud, 2020). Revitalization is a developmental process aimed at restoring the intrinsic values of cultural heritage. This is achieved by adapting fresh spatial functions, and harmonizing with preservation

principles and the cultural ethos of the community. The goal is to preserve cultural heritage, reconfigure spatial functions, revive cultural values, and strengthen information about cultural heritage (Pedoman Revitalisasi Cagar Budaya, 2013). Revitalization of historical buildings is crucial as these edifices symbolize the past and provide social, cultural, and architectural value for future generations (Ali & Qi, 2020). To optimize the use of cultural heritage by the community, revitalization initiatives should be guided by findings from comprehensive studies (Pedoman Revitalisasi Cagar Budaya, 2013). The zone pattern in the revitalization of the former Cililin Radio Transmitter area is divided into 2 zones, namely a conservation zone and a non-conservation zone, which can be seen in **Figure 8** and **Figure 9**.

The principles of cultural heritage revitalization should always be oriented toward preserving and maintaining local cultural characteristics. By the Guidelines for the Revitalization of Cultural Conservation, the principles concerning the reorganization of spatial functions include:

a) Using space while ensuring a harmonious relationship between cultural heritage and its surroundings.
b) Controlling the erection of new buildings based on zoning regulations.
c) Establishing new structures with careful consideration of spatial aesthetics (e.g., preventing new buildings from overshadowing the cultural heritage).
d) Allowing adaptive use of cultural heritage, provided it aligns with preservation principles, preserves its essential values, and adheres to the Guidelines for the Use of Cultural Heritage.
e) Changes or additions to spatial arrangements should be reversible.
f) Excluding adaptive use of cultural heritage classified as preserved in its original state without alterations.
g) Additions or use of space for the mentioned cultural heritage in point 3 can solely be performed for urgent purposes.

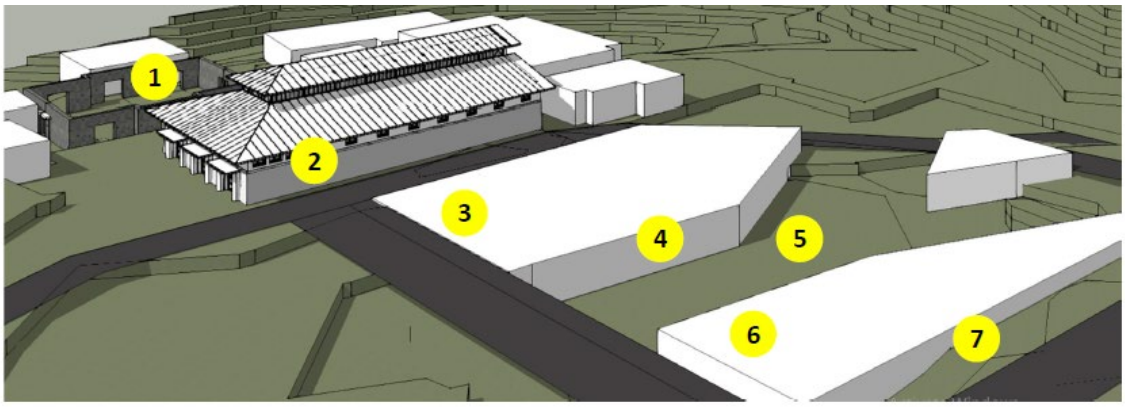

Figure 8. Zoning Concept

Figure 9. Exterior Perspective

a. Cililin Radio Transmitter Building

To revitalize and generate sustainable values from the structure, many cultural heritage buildings are reused rather than demolished (Bullen & Love, 2011). Among the most sustainable strategies for prolonging their lifespan and preserving historical significance, adaptive reuse plays a prominent role (Ali & Qi, 2020). This approach involves modifying and offering new purposes for the building while preserving its historical essence, thereby enabling it to actively contribute to community revitalization (Ali & Qi, 2020). Renovation and adaptive reuse (Hein & Houck, 2008) are significant avenues for injecting renewed vitality into communities as seen in **Figure 10** and **Figure 11** as seen in the figures before and after the revitalization process.

Several buildings in the Cililin radio transmitter area have been adaptively used throughout its history. These structures have changed their functions, originally serving as a radio transmitter station, military headquarters, school building, and even a tofu factory. Similarly, the official residence has undergone adaptive changes, transitioning from a residential space to a school building. As for the Transformer Building, although only its lower structure was retained, its interior area offers ample room. With proper planning, this space can be effectively repurposed to facilitate community activities.

Figure 10. Existing Condition of Cililin Radio Transmitter Building Interior, which allows accommodating multi-function activities with flexible space through adaptive reuse

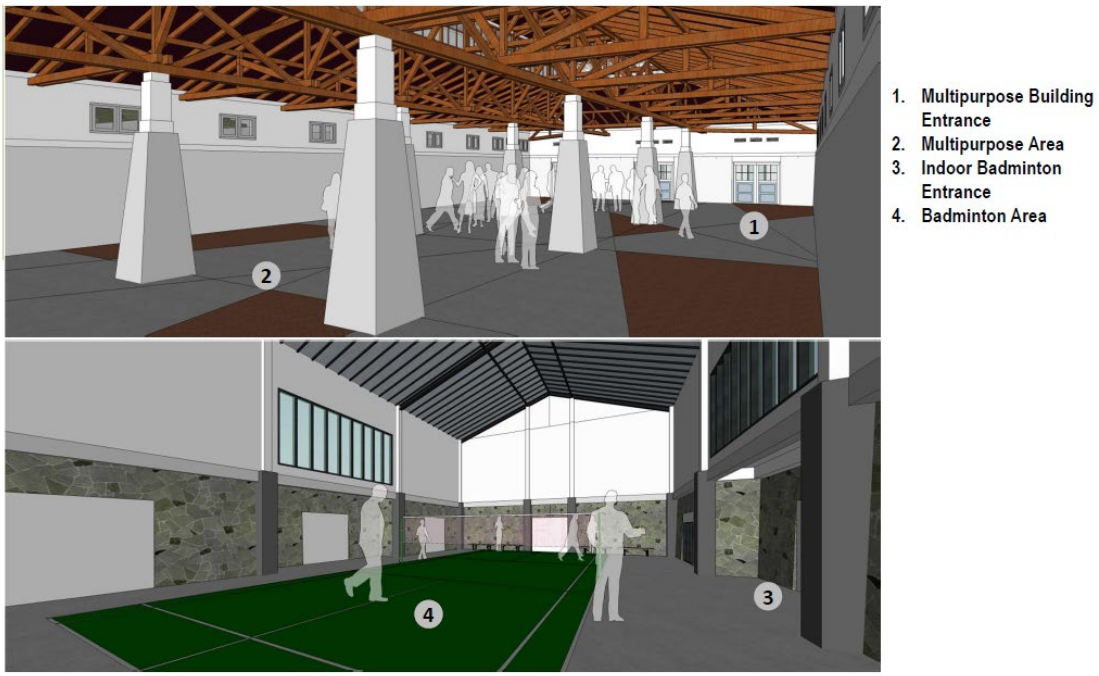

Figure 11. Interior of the Conservation Zone (Multipurpose Building and Indoor Badminton)

The Cililin Radio Transmitter Building, presently recognized as a cultural heritage site, has transitioned from Cultural heritage that no longer serves its original intent and can be repurposed for specific uses (Law of the Republic of Indonesia No. 11 concerning Cultural Heritage, 2010). The central and regional governments, as well as individuals, are granted the authority to leverage cultural heritage for diverse purposes, including religious, social, educational, scientific, technological, cultural, and tourism-related activities. The principles of usefulness, safety, preservation, authenticity, and inherent values guide these applications. This aims to promote economic development, with the outcome used for preserving cultural heritage and improving community welfare (Law of the Republic of Indonesia No. 11 concerning Cultural Heritage, 2010). In managing preserved cultural heritage buildings, stringent preservation rules should be observed. These include making as few changes as possible, preserving authenticity, and cautiously approaching any modifications (Education and Training Center for Roads, Housing, Settlements, 2017).

Based on the principles of revitalization that advocate the use of cultural heritage to promote economic development, a promising avenue exists for the Cililin Radio Transmitter Building. This approach entails accommodating activities that do not necessitate extensive space, thereby circumventing significant alterations to the existing structure. However, this helps to preserve the building while still generating revenue. The activities to be accommodated can be diverse, ranging from educational, and commercial, to recreational purposes. The facility could be transformed into a multi-purpose building used as a versatile hub for various events, such as conventions, artistic performances, exhibitions, and supporting activities (Antwi-afari et al., 2021). The Cililin Radio Transmitter Building can be adaptively repurposed into a flexible venue available for rent, catering to community activities in the area.

b. Transformer Building

The Transformer Building is currently no longer intact, aside from the walls of the lower structure, essentially depicting a historical ruin. In terms of utilization, these kinds of historical ruins can serve as modern and attractive tourist attractions, following appropriate securing and preparation measures as seen in **Figure**

12. However, using historical ruins requires meticulous consideration of preservation principles and specialized handling. Incorporating historical ruins into contemporary usage necessitates adherence to conservation guidelines and adaptation to current conditions and usage standards (Molski, 2021). The Charter For The Protection Of Historical Ruins issued by ICOMOS Poland outlines conditions that need to be met regarding conservation and adaptation interventions for ruins: (a) Preserving and maintaining the form of the ruins through technical operations, such as completing walls, domes, or ceilings and adding modern reinforcing structures with minimal intervention; (b) The addition of modern architectural forms is allowed as long as they differ from historical materials and structures. These additions should be designed to be reversible, allowing them to be returned to their original state; and (c) New designs or elements should be limited to avoid dominating the original substance of the ruins.

The lower structure walls of the Transformer Building can be preserved, while damaged or missing parts could be repaired and replaced. To make it usable, the intervention method was used to incorporate modern structures into the old envelope (Bloszies, 2012). In this context, the term envelope pertains to the external facade of the building. The intervention process encompasses the addition of new walls and roof structures that are reversible or semi-permanent. The primary purpose of these structures is to protect activities within the building. This integration technique is, commonly referred to as insertion, used to preserve the facade of old buildings, maintaining the emotional and historical connections they hold (Bollack, 2013; Kim, 2018). Interestingly, this insertion method has proven to be a viable solution in revitalizing older buildings that require a renewed approach, specifically deteriorated or damaged ones (Hunt et al., 2017).

The ruins of the lower wall of the Transformer Building, can be considered as a 'envelope' into which the structure and function of the new building can be inserted (Source: Personal Documentation, 2022)

Similar case studies : Dovecote Studio (Source: https://www.haworthtompkins.com/work/dovecote-studio)

Figure 12. Utilization of the Transformer Building ruins by taking a case study of the insertion method in Dovecote Studio as a precedent

The use of the Transformer Building (Labin et al., 2022) area also needs to adhere to the preservation principles while promoting economic development to generate income. The intended function must align with the needs of the residents and serve as a support system for establishing a community center.

B. Revitalization of the Non-Conservation Zone

The Cililin Radio Transmitter area holds historical significance, where one of the buildings was officially designated as a cultural heritage site. Cultural heritage can serve various purposes Lake et al., 2021), including religious, social, educational, scientific, technological, cultural, and tourism-related purposes (Law No. 11 concerning Cultural Heritage, 2010). Law No. 11 also emphasized the involvement of central and

regional governments and individuals in utilizing cultural heritage for collective benefit. The participation of the local community is considered a significant factor in preserving the cultural heritage status of the building and improving its environment (Hsiao, 2022). A strategic approach to developing cultural heritage buildings involves leveraging their potential to fuel economic growth, with resulting benefits allocated to preservation endeavors and community welfare enhancements (Law No. 11 concerning Cultural Heritage, 2010). Effective management can increase social cohesion, improve the environment, and economic gains for local communities (Mogomotsi et al., 2018). This underscores the importance of community engagement in managing and using cultural heritage structures. Apart from preservation and historical value, these facilities also have the potential to attract visitors and stimulate economic development in the surrounding community.

The revitalization project of the Cililin Radio Transmitter area, including the restoration of the Cililin Radio Transmitter and the Transformer Buildings, presents an opportunity for involving the local community in various activities. This involvement spans their roles as active participants and contributors to the economic growth of the community itself. Integral to this engagement is the management and upkeep of the building facilities, a responsibility that the community can assume. Additionally, important institutions in the vicinity, such as the Cililin Military Sub-District Command, SMAN 1 Cililin (a state senior high school), Cililin health center, etc. can also actively participate in diverse programs and activities, including religious, social, and educational, and tourism-related aspects. This collective participation serves to strengthen the bonds within the community. Historically, the building has been occupied by different institutions over time (companies, military, schools), thereby instilling a sense of value for contemporary entities, such as the Cililin Military Sub-District Command and SMAN 1 Cililin. Therefore, the revitalization effort is directed towards establishing a community center that benefits the residents and these pertinent institutions. To facilitate this, the historic buildings are repurposed to serve as supplementary structures for the community center, thereby enhancing their utility. By acknowledging the spatial limitations of the historical structures, the revitalization plan integrated the construction of a new building within the non-conservation zone as seen in **Figure 13** to **Figure 16**.

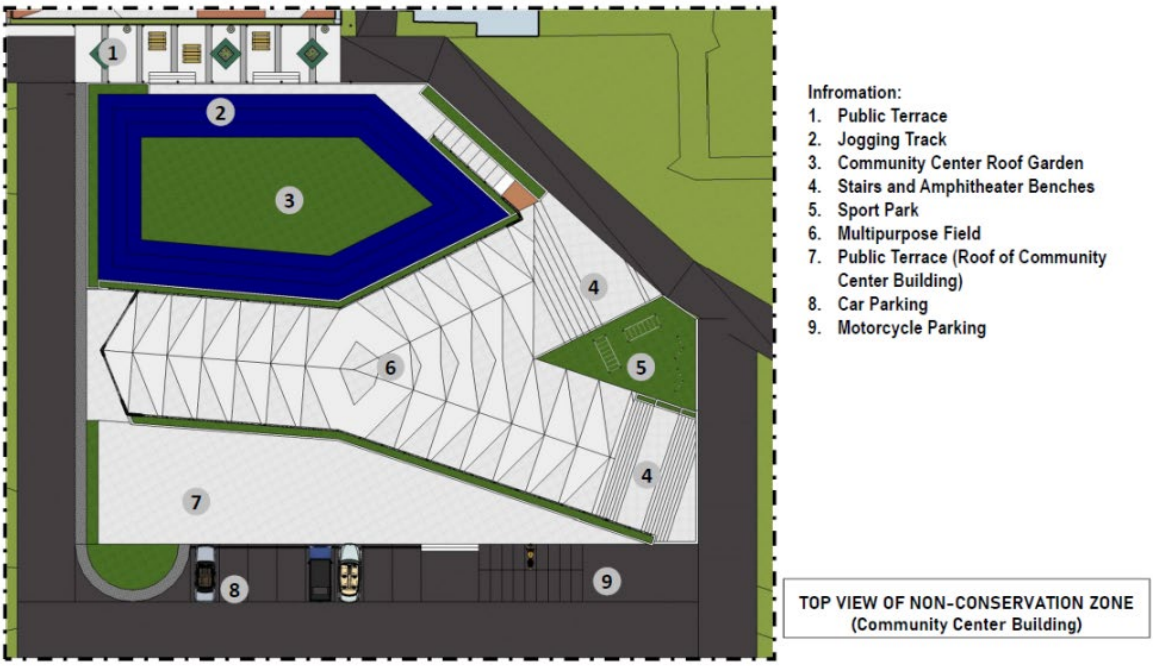

Figure 13. Top View of Non-Conservation Zone (Community Center Building)

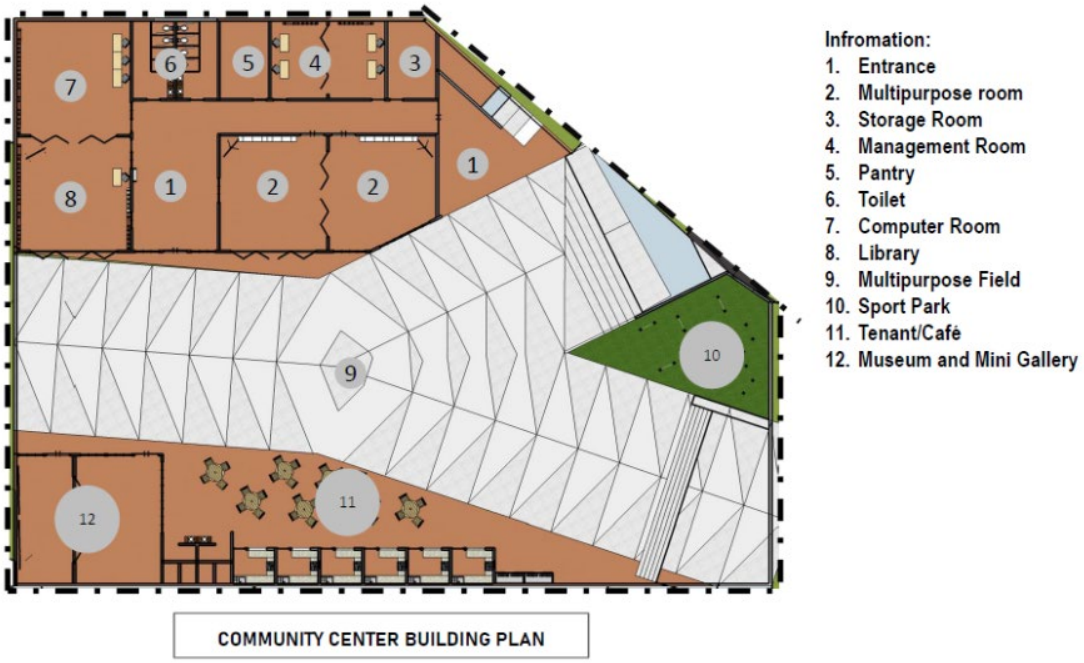

Figure 14. Community Center Building Plan

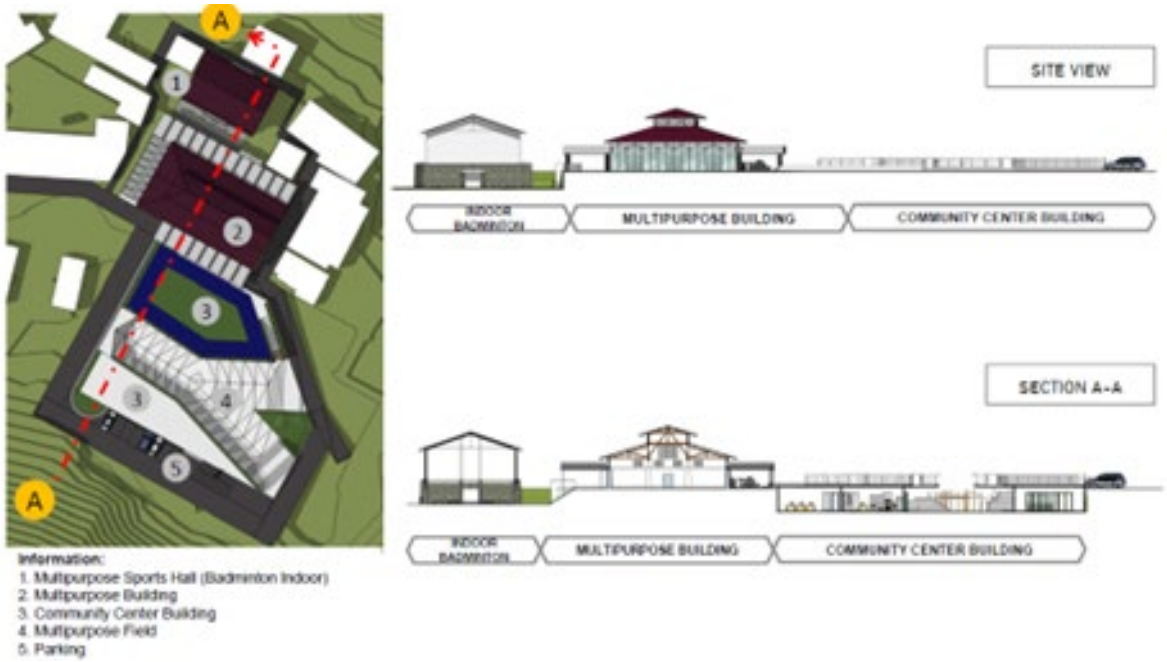

Figure 15. Siteplan, Site View, and Site Section

Figure 16. Community Center Building Interior

3.2 Community Center Design for the Revitalization of the Former Cililin Radio Transmitter

A community center is a physical space, which can be a hall, meeting room, or a versatile multipurpose building, equipped with a range of facilities and services. Its primary purpose is to provide a platform where individuals from diverse backgrounds and with varying interests can come together to engage socially, learn, create, offer support, and build lasting connections. In a broader context, a community center is a public establishment that provides a dedicated space for local organizations and groups to gather. This collective space hosts an array of programs, services, and social activities, all designed to meet the evolving social needs of the community. The term community in this context refers to organizations or institutions closely linked to the local area. In other words, a community center is a physical facility that considers the social needs and aspirations of a specific group of people. The following is a site plan, view, and section showcasing the Conservation Zone, which comprises the Badminton Sports Hall and the Multipurpose Building in **Figure 17** and **Figure 18**.

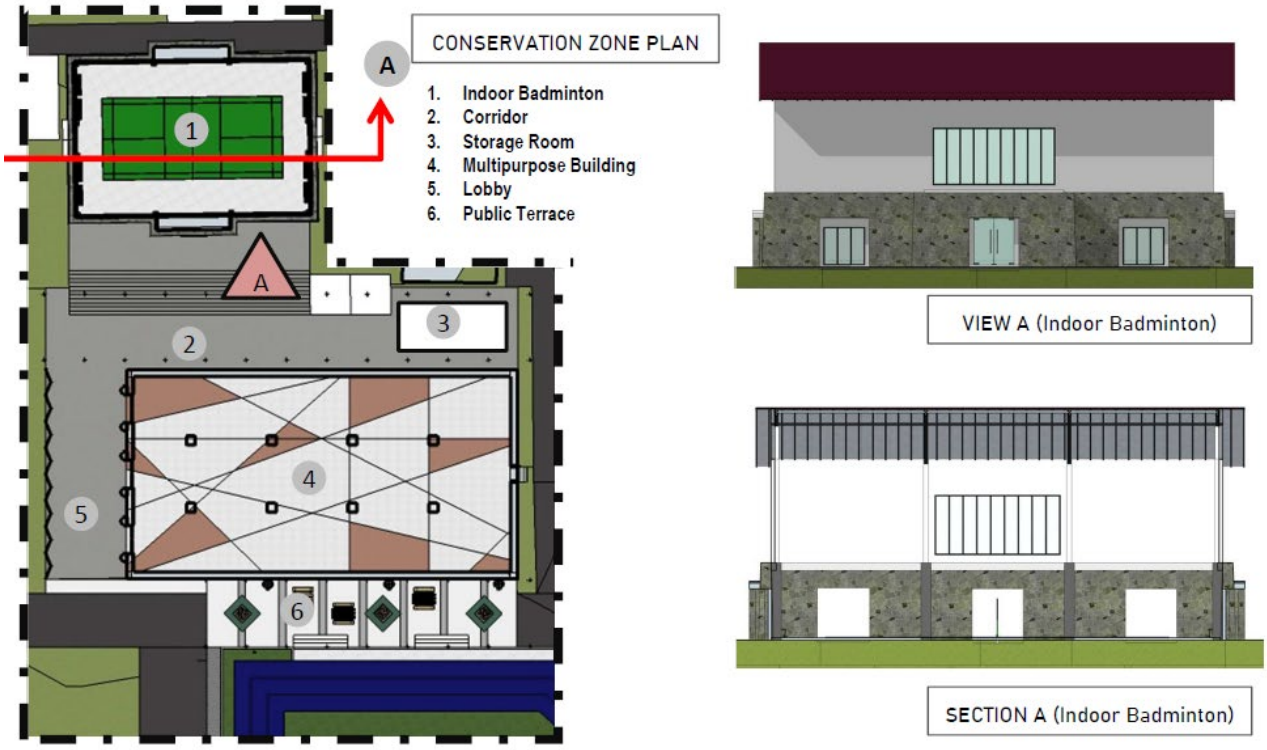

Figure 17. Indoor Badminton Plans, Views, and Section

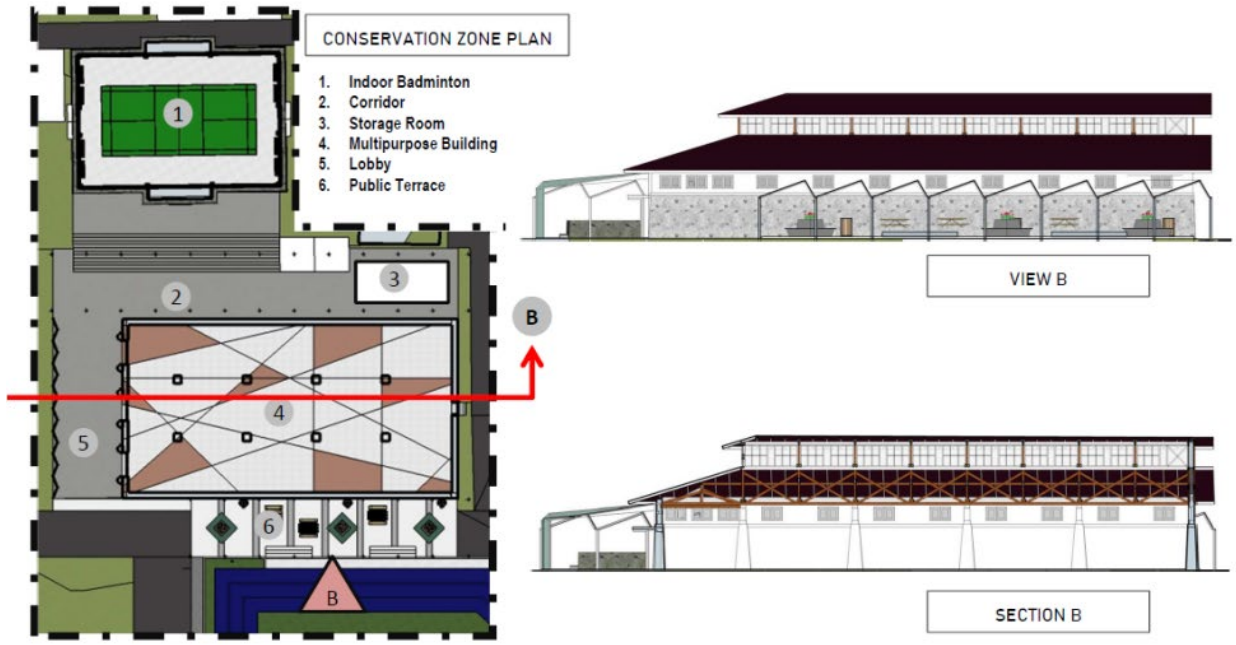

Figure 18. Multipurpose Building Plans, View and Section

The accommodated social needs align with the potential of the surrounding community and institutions. The field survey shows several organizations, institutions, and attractions around the Cililin Radio Transmitter Building. These are included in **Table 1**:

Table 1. The community around the location of the former Cililin Radio Transmitter

No	Name of Organization/Institution/Attraction	Field
1	Cililin Military Sub-District Command	Government (8 institutions)
2	Cililin Inpatient Health Center	
3	Cililin Sub-district Office	
4	Cililin Bus Station	
5	Cililin Village Office	
6	Cililin Market	
7	Cililin Police Sector Office	
8	Cililin Regional Hospital	
9	SMAN 1 Cililin (the State Senior High School 1 Cililin)	Education (6 institutions)
10	Al-Huda Islamic Boarding School	
11	SMPN 1 Cililin (the State Junior High School 1 Cililin)	
12	Al-Mubin Islamic Boarding School	
13	SMP PGRI Cililin (Junior High School PGRI Cililin)	
14	MAN Cililin (the State Islamic Senior High School Cililin)	
15	Cililin Square Park	Recreation (3 institutions)
16	Sawer Waterfall	
17	Cililin Hang Gliding	

There are eight government parastatals, six educational institutions, and three recreational attractions. The essence of the community center is to support sustainable social development by providing physical space to meet social needs. The physical space tends to accommodate the following:

a) General public meetings, activities, or events.
b) A central base for delivering services and programs for the local community.
c) Special services, programs, and activities cater to specific groups, such as teenagers or the elderly.
d) Rentable space for private events.
e) Specialized facilities that focus on recreation, arts, cultural activities, learning, or social support.

To align with the conditions and potentials of the surrounding community, the center is directed towards transforming into a versatile activity hub. This involves providing space for local activities and possible rentals. Additionally, the center serves as an open public space in Cililin Village, accessible to both residents and visitors for recreational purposes. The envisaged facilities are designed to cater to a broad spectrum of activities, encompassing formal and non-formal categories. Formal activities pertain to official government events such as commemoration ceremonies, community festivals, bazaars, and other structured functions. In contrast, non-formal activities consist of regular engagements that contribute to the ongoing vitality of the community center, ensuring continued activity even in the absence of official events.

3.2.1 Design Criteria and Concept

The criteria and concept of facility design for the planned community center are shown in **Table 2**. The transformation of the community center mass composition is explained in the following **Figure 19**.

Table 2. Community Center Design Criteria and Concepts

Aspect	Design Criteria	Design Concept	Facility
Location and Potential	• The plan involves setting up educational (senior and junior high schools, as well as Islamic boarding institutions) and healthcare facilities (Cililin Health Center and Cililin Regional General Hospital). This initiative aims to provide access to education and health services in the community. Moreover, the proposal includes the provision of supplementary amenities such as libraries and physical or sports facilities. • The design of the facility should prioritize accessibility and usability for people of all ages, given the probable presence of diverse communities around the area. These communities comprise eight government institutions and six educational establishments.	• Specifically, the community center should harness its potential to cater to teenagers and young adults, creating a distinct thematic identity for the facility. One possible manifestation of this theme could be incorporating a sports park within the premises.	• Sports park or an area with sports facilities.
Conservation Zone	• The Cililin Radio Transmitter is part of the community center facility, serving as a versatile space that can be rented out with minimal modifications to the original architecture.	• The facility is equipped to host various events, such as weddings, meetings, and indoor activities, with minimal risk involved.	• Multipurpose building
	• The Transformer Building is also part of the community center facility, and it plays a critical role by providing rentable space for indoor activities that cannot be conducted in the Cililin Radio Transmitter structure.	• The facility is capable of accommodating low-risk indoor sports, such as badminton.	• Badminton sports hall
Non-Conservation Zone	• The community center is a hub for community activities while serving as a source of income for the residents. • Providing integrated spaces for community activities • Crafting spaces that encourage social interactions involve providing amenities catering to indoor and outdoor activities not currently available in the Conservation Zone.	• The facility should be designed to host a variety of multifunctional activities, both indoor and outdoor. (e.g., These activities encompass training sessions, sports facilities, bazaars, commemoration ceremonies, and recreational areas. The layout should feature adaptable spaces that can effectively cater to these diverse activities.	Community Center Buildings: • Versatile outdoor field or area • Public plaza • Jogging track • Sport Park • Library • Mini museum or gallery • Multipurpose rooms • Management room • Rented tenant spaces • Parking area
Revitalization Theme	• When planning the construction of new buildings, it is important to incorporate design principles that maintain the visual and historical value of the existing ancient buildings nearby or within the historic area.	• The architectural concept of the building should reflect the historical value of the Cililin Radio Transmitter area as a communication facility in the past and the origin of the name *Babakan Radio.*	• The building form symbolically denotes its historical importance, embodying the notion of connecting related and social elements through metaphorical design.

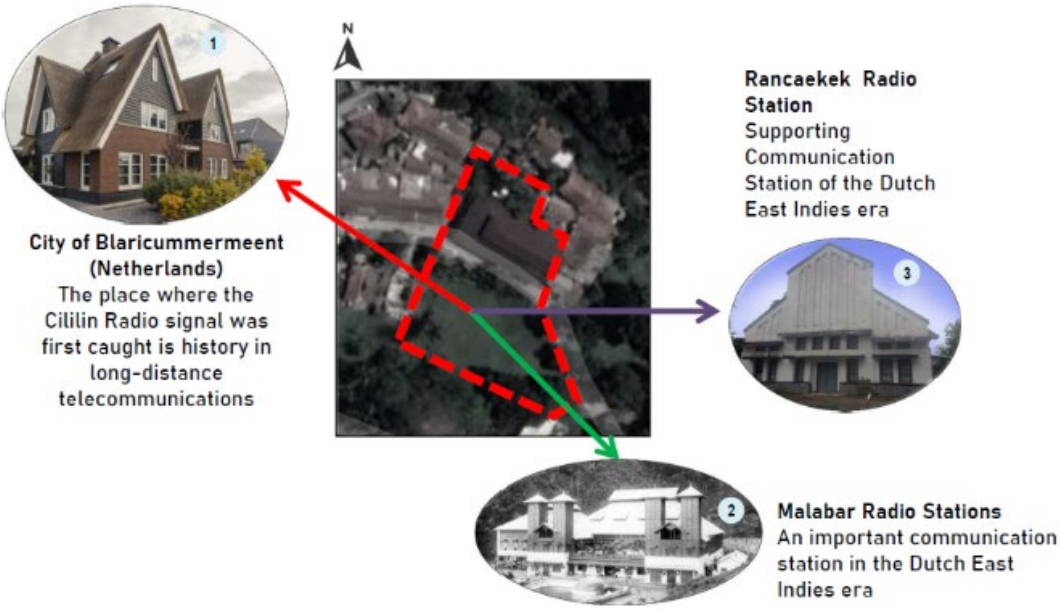

Figure 19. Connecting historical value: Draw an imaginary axis as the basis for the building layout based on the position of the location for 3 directions of places related to the Cililin Radio Transmitter in the past as orientation

3.2.2 The Creative Method of Metaphor as a Design Approach

Metaphor is a conduit for architectural creativity, allowing buildings and concepts to be perceived through unconventional lenses. This approach necessitates a profound and systematic grasp of foundational knowledge (Antoniades, 1992). Interestingly, this linguistic device maps the translation of experiences from one domain to another, giving meaning to a concept. It enables the assimilation of new experiences within the context of past ones (Forwood, 1994). Metaphor is an integral facet of creative design methods. It empowers architects to communicate the emotional nuances associated with specific architectural styles vividly. Through the use of metaphor, architects can seamlessly integrate the message they intend to convey into their work. This could be in identification or operationalization, symbolic meaning, ideology, or visionary aspiration. The application of the metaphorical creative method as a manifestation of the revitalization concept of the former Cililin Radio Transmitter area can be seen in **Figure 20** and **Figure 21**.

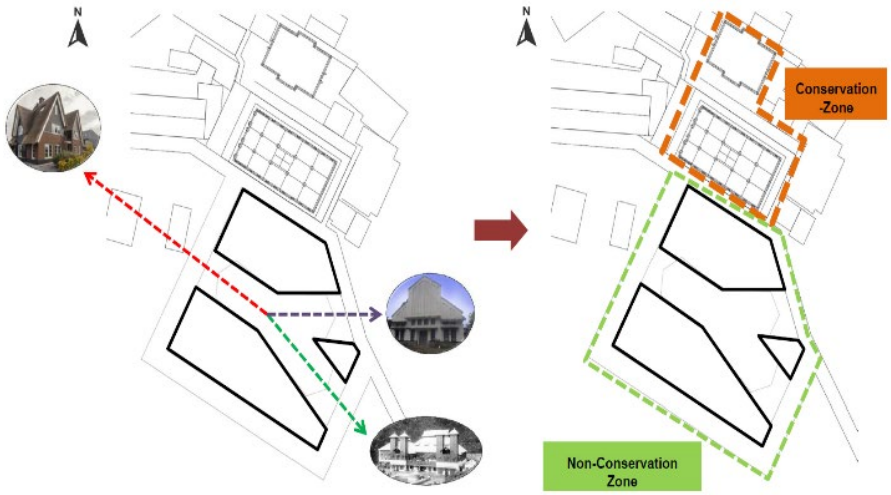

Figure 20. The basic form of the community center building

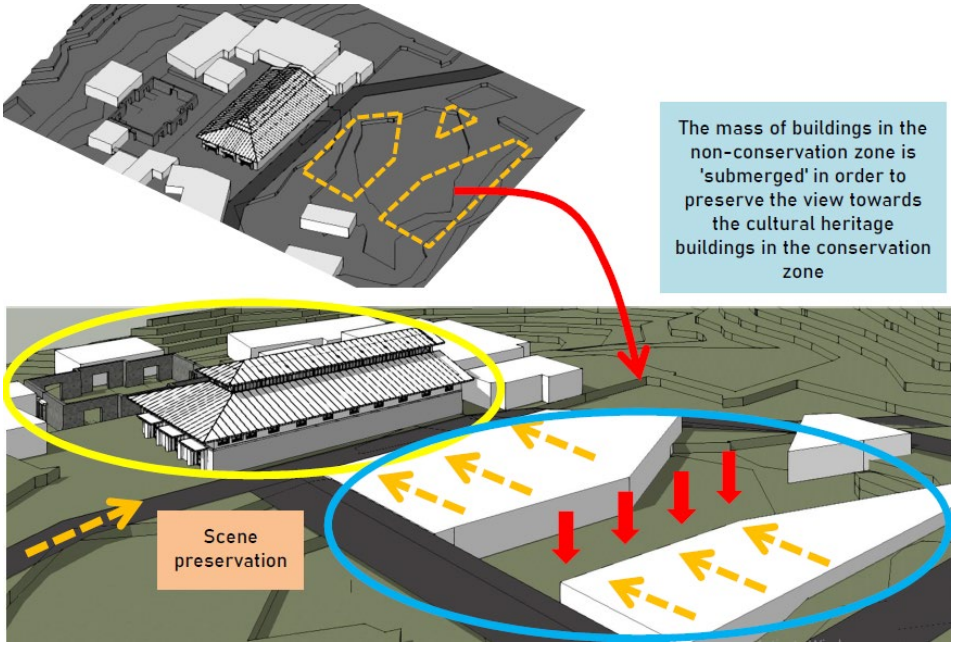

Figure 21. Community Center Building Mass Composition Concept

Phenomenologically, architectural meaning and content, encompassing historical, educational, and symbolic significance (Sutestad & Mosle, 2016), are creatively conveyed through the deliberate use of forms, spaces, and material solutions (Wilczek, 2021). Meaning refers to how a place communicates, signifies, triggers emotions, or expresses certain ideas relating to tangible aspects such as symbolic characteristics and memories (Australia ICOMOS, 1999).

In the process of revitalizing a non-conservation zone, the design of the community center takes on the role of not only preserving history but also infusing it into tangible symbols. This is particularly evident in the manner the physical structure of the new community is organized. The deliberate arrangement of forms and spaces gives rise to meanings that are both historical and symbolic. This is achieved by focusing the theme on the concept of connectivity. Connectivity in this context entails creating a link between the historical values of the past, as represented by the architectural form, and the present and future experiences of the community that would use the facility. This approach allows for a subtle yet profound interpretation of the historical value of the location, enabling people to discern its significance through this skillful interconnection.

To foster a sense of harmony, architectural design in historical environments requires certain theoretical bases and principles to avoid potential mistakes. A significant approach for effectively integrating new buildings into such contexts is the contrast method, where the fundamental idea involves juxtaposing the historical backdrop with the recent architectural addition (Pronina, 2021). In broader terms, as outlined in the Indonesian Dictionary (Rachman and Ratnasari, 2022), contrast means showing distinct differences when an object is compared in terms of color, shape, size, etc. This method can be interpreted as showing distinct differences between contemporary and historical objects. The contrast method is pivotal in realizing spatial coherence in historical settings by providing visual differences (Stanislav & Chin, 2019). Concurrently, it safeguards the preservation of the unique character intrinsic to cultural heritage structures, preventing the jarring visual discord when new constructions starkly stand out against the backdrop of older buildings (Salura et al., 2020).

When the design community center was being designed, contrast methods were used to differentiate between the conservation and non-conservation zones visually. The existing structures within the conservation zone were perceived as a focal point of view. By capitalizing on the unique topography of the site, where the non-conservation zone sits approximately three meters lower than its conservation counterpart (Wilczek, 2020), a strategic decision is made to submerge the community center building. This thoughtful placement ensures the unobstructed continuity of sightlines toward the conservation zone. The interplay of contrast finds expression in the deliberate difference between the established structure, seemingly ascending, and the artfully submerging innovative new construction (Shevchuk et al., 2023; Turunen, 2022).

4.0 CONCLUSIONS

In conclusion, the revitalization of historical areas was essential for the preserved legacy and provided an invaluable learning experience for both the current and future generations. The former Cililin Radio Transmitter area held significant historical value and served as a cultural heritage site within the telecommunication industry. It stood as a testament to the historical struggle, defense of independence, and educational endeavors in the Cililin region. The process used to preserve this heritage required a revitalization approach to reinforce its intrinsic significance. Through this process, the essential values of the area were upheld while injecting new vitality. The ultimate goal creates an appealing and dynamic space that captivates and engaged visitors.

Active community participation was fundamental to the preserved heritage and improved the environment. Therefore, the revitalization of the former Cililin Radio Transmitter area was geared towards meeting the needs of the community. This initiative gained momentum by leveraging cultural heritage as a catalyst for social interaction, environmental betterment, and local economic growth. The revitalization strategy hinged on the establishment of a community center meticulously tailored to cater to the aspirations of residents and neighboring communities. With eight government institutions, six educational facilities, and three recreational attractions broadly oriented towards education and health, the community center focused on young adults and health-related activities such as sports. This potential found seamless integration within the community center blueprint. As a dynamic hub, it offered a versatile space for community-driven activities, available for public use and private event rentals. It was simultaneously transferred into a welcoming public haven within Cililin Village, which attracted visitors to these recreational outlets. The meticulously planned facilities in the community center catered to a diverse range of activities, from government ceremonies and community festivals to bustling bazaars. This perpetuated the vibrancy of the center even during periods devoid of official events.

The revitalization effort divided the area into Conservation and Non-Conservation Zones. The Conservation Zone encompassed the former Cililin Radio Transmitter and the Transformer Buildings, which served as a multipurpose structure and an indoor sports facility. In the Non-Conservation Zone, a new community center building was erected using a creative metaphor to transfer historical meaning into tangible symbolism. This was realized through a thoughtful arrangement of the building mass. The primary goal was to craft an environment rich in historical and symbolic significance. This was achieved through the artful configuration of forms and spaces, all centered around the theme of connectivity. In this context, connectivity refers to the seamless integration of historical values embedded in the design of the building, which is effectively related to the present and future experiences of the community and broader society who used the facility. This innovative approach enabled individuals to grasp and interpret the historical essence of the location subtly.

Through the revitalized project of the former Cililin Radio Transmitter area, transformed into a community center, a range of income-generating opportunities emerged under effective management. These prospects included the Multipurpose Building and the Badminton Indoor Sports Hall. Additionally, shared facilities such as a jogging track, sports park, multifunctional community room, library, computer laboratory, tenant or café, museum, mini gallery, and a versatile field provided various avenues for community engagement. The holistic revitalization initiative encompassed dual aspects, improvements in the conservation zone and community center development. This preserved and rejuvenated the historical value of the area for the benefit of the surrounding communities.

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