

The Design of Mosque at Living Lab Glugur Rimbun, Kutalimbaru District

Dara Wisdianti

Department of Architecture, Universitas Pembangunan Panca Budi, Medan, Indonesia

DOI: <https://doi.org/10.52403/ijrr.20230457>

ABSTRACT

Kutalimbaru District is included in the area of Deli Regency Serdang, North Sumatra Province. Natural condition of Kutalimbaru District in general has 2 (two) seasonal climates, namely the dry season and rainy season where both climates are influenced by sea breezes and mountain breeze. Kutalimbaru is one of the sub-districts in Deli Serdang Regency, Sumatra Province North, has 14 villages. This research is a qualitative descriptive research with a literature study research method through literature studies. As the zoning concept of Living Lab, Kutalimbaru, the mosque zone is H and part of rest area. The mosque architectural design for Living Lab Glugur Rimbun, Kutalimbaru show (a) Front and back of the Mosque, (b) The interior of mosque form several angles, and (c) The toilet of Mosque. It is expected to be part of an educational tour (Living Lab) for general visitors.

Keywords: Design, Living Lab, Mosque, Kutalimbaru

INTRODUCTION

Kutalimbaru District is included in the area of Deli Regency Serdang, North Sumatra Province. Natural condition of Kutalimbaru District in general has 2 (two) seasonal climates, namely the dry season and rainy season where both climates are influenced by sea breezes and mountain breeze. Administratively, Kutalimbaru District borders with several areas, namely: the north border with the District Sunggal and Pancur Batu, south border with sub-district Sibolangit, bordered to the east of Pancur Batu District, next to the west is bordered

by Langkat Regency (BPS Deli Serdang, 2021).

A brief history of Kutalimbaru sub-district

1. The Era of Dutch Rule
This area is named Hofd Paapa Sebernaman which now called Kutalimbaru District. Fatherly Hofd Kutalimbaru submitted to a region called Coetoeleur Van Boven which is now Pancur Batu (Armenia). Fatherly Hofd Sebernaman is in charge of 6 Fatherhoods and is held by Tangkas Sinulingga and to Penghuluan as many as 80 headwaters.
2. Japanese Reign (1942-1945)
During the Japanese Reign Government Kutalimbaru is divided into 80 Komico, which are subject to the Region Guntebu held by Bunsinco.
3. The Reign of R.I (1945)
During the reign of the Republic of Indonesia this area has the status of a sub-district that oversees 80 upstream and organizationally the government to go to the Regency until in 1946. At that time Kutalimbaru District was subject to Kewedanaan Deli Hulu located in Pancur Batu, which located in the Kewedanaan Deli Hulu Area consists of: several Kutalimbaru Districts, Sibolangit Districts, Namo Rambe District and Kutalimbaru District.
4. East Sumatra State Era (NST) 1948
At this time this area was named Onder Hofd (ODH) which is under the Hofd District Government in Pancur Batu

which was held by the Ancient Country, and this state lasted until December 29, 1949.

5. The Unitary State (1950)

At this time the status of Government in this Region returned to Kutalimbaru sub-district held by Kelang Sinulingga and kedanaan in Pancur Batu held by

Keras Surbakti (Kewedanaan Deli Hulu) continued until the abolition Kewedanaan Deli Hulu area in 1957. After Abolition of Sovereignty then the status of the Government changes back Kutalimbaru District with District Capital who is domiciled in Kutalimbaru Village.



Figure 1. The location of Living Lab Glugur Rimbun, Kutalimbaru

There is non-productive land owned by the Prof. Dr. H Kadirun Yahya Foundation in the Glugur Rimbun area of 20 ha, in order to change the land to be more productive, UNPAB is currently building a use plan for 10 ha and is expected to cultivate all 20 ha of the land. In this planning, UNPAB involves all study programs (study programs) in its nature. Basic Concepts The land development meets the needs of UNPAB's learning, practicum, research and innovation center which can become an income generator.

Tri Dharma of Higher Education UNPAB (Universitas Pembangunan Panca Budi) Tri Dharma PT has 3 points, namely Education and Teaching, Research and Development, and Community Service. Al Amin Science and Industrial Park (Living Lab) was developed as a land for educational and learning applications, research and trials of the academic community, therefore there are facilities such as workshops, research land

provided and can be seen by visitors as UNPAB educational show cases.

It is also hoped that with the cooperation of villages and the surrounding community, Community Service can be carried out in the form of cooperation, counseling, and even services so that surrounding villages can become part of College UNPAB's Tri Dharma application. Eco-Tech-Edu Tourism The combination and integration of learning across applicable programs is expected to be part of the educational tour of Al Amin Science and Industrial Park (Living Lab) for general visitors.

LITERATURE REVIEW

Mosque Architectural Design

A mosque is a building or environment that is established specifically as a place of worship to Allah SWT, especially prayer. The term al-masjid linguistically means "place of prostration", from the verb sajada or yasjudu meaning "to prostrate". People who enter the mosque are encouraged to

perform the tahyatul prayer of the mosque two rakaat. The Prophet (peace be upon him) said, "If one of you enters the mosque do not sit down before performing the two rakaat prayers" (HR. Abu Dawud).

The mosque is one of the cultural works of Muslims in the field of construction technology that has been pioneered since its inception and has become a characteristic of an Islamic country or city. The mosque is also one of the most important patterns and embodiments of Islamic culture.

The embodiment of the mosque building is also a symbol and mirror of the love of Muslims for their God, and is evidence of the level of development of Islamic culture. Mosques that are built usually represent their era, by presenting building architecture according to the understanding of design and technology at that time. Not infrequently a mosque is built with the best materials and technology of its time, so that

it becomes a monumental work that is timeless.

The function and role of mosques for Muslims, namely: as a house of God, a place of worship, a place of unifying the people, as well as a manifestation and barometer of the existence of the Muslim community. In the definition of a mosque according to the Shari'a, it does not emphasize the element of artifacts, which indicates the flexibility that Islam gives to the form of the mosque. This is why, the shape of the mosque from the time of the Prophet until now is very diverse.

As an architectural object, the mosque is an open space with a barrier around it and an emphasis on the orientation of the Qibla which is referred to as the idghah model. The only major element of the mosque is a qibla-oriented open space surrounded by barriers to signify the boundaries of the mosque as a sacred space.



Figure 2. Front and back of the Mosque

The architectural form of the mosque can be seen from several approaches, such as the populist approach of revivalism, namely the application of architectural elements of the past, the heyday of Islam. Second, an eclectic approach that mixes two or three architectural styles. Third, the regionalism approach in which the architecture of the mosque represents the environment and socio-culture of the local region. Fourth, a metaphorical approach that displays architecture with symbolism that represents Islam. Fifth, a structural approach that displays structural elements as aesthetic.

The figure above shows the design of the mosque in the Living Lab Glugur Rimbun Kecamatan Kutalimbaru which has been

made by the author so that the Living Lab area is perfect in accordance with the activity plan and function. The left is front and right is back of the Mosque.

MATERIALS & METHODS

This research is a qualitative descriptive research with a literature study research method through literature studies sourced from journals from previous research results (Kurniawan, 2014) related to the title, also through access to data obtained from website as an informational publication. Qualitative descriptive research can mean that researchers as a key instrument by which data collection techniques are carried out by combining and inductive data

analysis (Sugiyono, 2012) so as to produce and process data that It is descriptive such as narrating the results of interviews and/or observations.

RESULT

The development of land that is the object of research is to meet the needs of learning, practicum, research and UNPAB innovation center which can become an income generator. Therefore, PSE-GR has rooms and activities that are mutually sustainable internally and externally. This is aligned

with the understanding of UNPAB Living Lab which adheres to the concept of circular economy education based on Islamic and humanitarian values. PSE-GR Development Opportunities Areas with the Eco-Tech-Edu Tourism concept that has an understanding of circular economy education (CED) are still very minimal in SUMUT, PSE-GR can be a pioneer in spreading this CED understanding where there is an integration of economic and educational activities that at the same time help preserve nature.

Table 1. The Activities Plan and Its Function

Area	Space requirements	
Welcome area	Information centre	Parking
	Gate	Landscaping garden
Rest area	Cafe & restaurant	Marketplace, Product gallery
	Office	Mosque
	Toilet	Garden
Service area, Office & Administrative Area	Generator	Reservoir air
	Garbage bank & hygiene	Control room & security
	Boarding house	Amenities
Educational area research, Workshop & production area	Hall	Museum
	Workshop	Laboratory
	Production & packaging room	
Public recreational area	Camping ground & Picnic area	River tourism
	Outbond & outdoor playground	
Agro-wisata	Agriculture	Animal husbandry
	Processing of production products	Packaging of production
	Waste	

Source: Living Lab Glugur Rimbun, Kutalimbaru



Figure 3. The Zoning Concept of Living Lab, Kutalimbaru

where:

A. Reception zone, sports centre, and rusunawa	E. Animal husbandry Zone
B. Product Processing Zone and Marketplace	F. Nature Zone and Outdoor Recreation
C. Main Plaza Zone and Area Management Office	G. Service Zone
D. Agricultural and plantation zones	H. The Mosque zone

Islam is the most practiced religion, simple and balanced in the world. The mosque is an important architectural heritage which is used by the Muslims by the sole purpose of religious obligations throughout the world. The aim of this research paper is to connect the salient features of architectural design of the mosque of contemporary time period and to depict the discovery of creativity.

The word mosque is derived from an Arabic word, masjid is a place of worship and sajdah meaning in Arabic to bow down in prayer (Arif, 2015). Structure of building is a significance house of worship and symbol of Islam. The Muslim hears voice of adhan from the muezzin five times a day from the top of minarets to summon the faithful to prayer. Common elements in architectural

design of mosque are the dome, minaret, portico, arches, ablution area, courtyard and in twentieth century majority of the mosques were built in the hypostyle hall with a flat roof and possibly one or more small domes, and the building also constructed with a large central space often covered by a huge dome provided with lateral support by weight of half domes. Layout of the vaulted hall divides place on each side of the central rectangular courtyard. All these contributions of elements combine together and form a spectacular architectural masterpiece known as the mosque. Calligraphy, geometry and garden plans are also some features which enhance the splendor of the mosque.



Figure 4. The interior of mosque

The figure above shows the design of the mosque in the Living Lab Glugur Rimbun Kecamatan Kutalimbaru which has been made by the author so that the Living Lab area is perfect in accordance with the activity plan and function. The interior of Mosque.

The importance of providing accessible toilets and accessible ablution areas in Masjid is also a part of Islamic virtue as

these areas are provision places of purifying one self. As Muslims are encouraged to attend congregational prayers for all five praying times besides doing 'ikhtiqaf' and 'mussaffir', making Masjid are one of the most visited and used places at any time of the day and people tend to use the toilets and ablution area. To support the overflowing of worshippers during congregational prayers especially Friday

prayers, most Masjid have provided sufficient large areas for ablution and toilets (Rahim, et al., 2014). It is understandable for architects to design Masjid' ablution area and toilets to be situated at ground level

or one level under the prayer hall, and this is because to cater large usage capacity, space zoning and ease of cleaning purposes for the prayer hall.



Figure 5. The toilet of mosque

The figure above shows the design of the mosque in the Living Lab Glugur Rimbun Kecamatan Kutalimbaru which has been made by the author so that the Living Lab area is perfect in accordance with the activity plan and function. The toilet of Mosque.

DISCUSSION

Kutalimbaru is one of the sub-districts in Deli Serdang Regency, Sumatra Province North, has 14 villages. As the zoning concept of Living Lab, Kutalimbaru, the mosque zone is H and part of rest area. The mosque architectural design for Living Lab Glugur Rimbun, Kutalimbaru show (a) Front and back of the Mosque, (b) The interior of mosque form several angles, and (c) The toilet of Mosque.

It is expected to be part of an educational tour (Living Lab) for general visitors. Apart from being a place of entertainment, visitors will be shown and can interact with learning objects so as to understand that technological, educational, and economic developments can take place without leaving religious, spiritual, cultural, and natural sustainability values. Fitrah (Islam)-based education with its pearls of wisdom which aims as a place for human spiritual training will include religious values in all implementation of its activities. The concept of halal and tayyib in education, animal

husbandry, agriculture, to the creation of a reflection of an independent civilizational ecosystem.

CONCLUSION

1. The word mosque is derived from an Arabic word, masjid is a place of worship and sajda meaning in Arabic to bow down in prayer. Structure of building is a significance house of worship and symbol of Islam.
2. As the zoning concept of Living Lab, Kutalimbaru, the mosque zone is H and part of rest area. The mosque architectural design for Living Lab Glugur Rimbun, Kutalimbaru show (a) Front and back of the Mosque, (b) The interior of mosque form several angles, and (c) The toilet of Mosque.
3. It is expected to be part of an educational tour (Living Lab) for general visitors. Apart from being a place of entertainment, visitors will be shown and can interact with learning objects so as to understand that technological, educational, and economic developments can take place without leaving religious, spiritual, cultural, and natural sustainability values.

Declaration by Authors

Acknowledgement: None

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. Agus Wibowo, Gunawan, 2015. Pendidikan karakter berbasis kearifan lokal di sekolah: konsep, strategi, dan implementasi. Pustaka Pelajar. Jakarta.
2. Alfian, Magdalia. 2013. Potensi Kearifan Lokal Dalam Pembentukan Jati Diri dan Karakter Bangsa, Prosiding The 5th International Conference on Indonesia Studies: Ethnicity and llobalization, Jakarta.
3. Arif, Amna and Mehmood, Shaukat. 2015. Mosque: Describe Architectural Features and Importance. From https://www.academia.edu/24655762/Mosque_Architectural_Features_and_Importance [4/4/2023]
4. BPS, Kabupaten Deli Serdang Dalam Angka 2021. Kabupaten Deli Serdang: BPS Kabupaten Deli Serdang, 2021. [Online]. Available: <https://deliserdangkab.bps.go.id/publication/2021/02/26/1c9e88f7c76d1c6b23db1dac/kabupaten-deliserdang-dalam-angka-2021.html>
5. BPS, Kecamatan Kutalimbaru Dalam Angka 2020. Kecamatan Kutalimbaru: BPS, 2020. [Online]. Available: <https://deliserdangkab.bps.go.id/publication/2020/09/28/79ed3ab24d4388db86248e55/kecamatan-kutalimbaru-dalam-angka-2020.html>
6. Marfai, Muh. Aris. 2013. Pengantar Etika Lingkungan dan Kearifan Lokal. UGM Press. Yogyakarta.
7. Mungmachon, Roikwanphut. 2012. Knowledge and Local Wisdom: Community Treasure. *International Journal of Humanities and Social Science* Vol. 2 No. 13; July 2012. Thailand.
8. Istiawati. Novia Fitri. 2016. Pendidikan Karakter Berbasis Nilai-nilai lokal Adat Ammatoa Dalam Menumbuhkan Karakter Konservasi. *Cendekia Jurnal Pendidikan dan Pengajaran*. Vol 10. No 1. 2016. Surakarta.
9. Rahim, Asiah Abdul, et al. 2014. UNIVERSAL DESIGN FROM ISLAMIC PERSPECTIVE: MALAYSIAN MASJID. *Journal of Architecture, Planning & Construction Management* Vol. 4 (2) pp. 1-13.
10. Sartini. 2004. Menggali Kearifan Lokal Nusantara, sebuah kajian filsafat. *Jurnal Filsafat, UGM*. 2004, Jilid 37, Nomor 2 Yogyakarta.
11. Thamrin. Husni 2013: Kearifan Lokal dalam Pelestarian Lingkungan-ejournal.uin.puska.ac.id/index.php/Kutubkhanah/article/viewFile/233/219.
12. Wahono, Francis .2005. Pangan, Kearifan Lokal dan Keanekaragaman Hayati. Penerbit Cindelas Pustaka Rakyat Cerdas, Yogyakarta.
13. Suhartini. 2009. Kajian Keafifan Lokal Masyarakat Dalam Penegelolaan Sumberdaya Alam dan Lingkungan. Prosiding Seminar Nasional Penelitian, Pendidikan dan Penerapan MIPA, Fakultas MIPA, Universitas Negeri Yogyakarta, 16 Mei 2009.

How to cite this article: Dara Wisdianti. The Design of Mosque at Living Lab Glugur Rimbun, Kutalimbaru District. *International Journal of Research and Review*. 2023; 10(4): 469-475.
DOI: <https://doi.org/10.52403/ijrr.20230457>
