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Asian Architecture [ARC 2234/ ARC60403]

Project: Contextual Architecture Study and Case Study Paper

Effective Open Design of Sekeping Serendah, Rawang in Achieving Optimum Privacy and Safe Occupancy.

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Abstract

The aim of doing a comparative study on the open design strategies in vernacular Malay houses and Sekeping Serendah is to determine the degree of effectiveness on the open design of Sekeping Serendah in achieving optimum privacy and safe occupancy. With the open design being one of the most remarkable features in vernacular Malay houses to provide maximum ventilation yet the privacy and safe occupancy can be ensured, it is anticipated that the meanings of the open design through its functions and cultural importance to its local context are being discovered. In supporting the validation of the research, literature reviews based on various sources regarding open design strategies of the building were conducted to improve the process. In order to provide a wider alteration of research, it is important to discuss and consider on how the vernacular Malay houses and Sekeping Serendah can provide open spaces with optimum privacy and safety. As for the vernacular Malay houses, the first nature of response is a tendency to raise these houses on stilts. This format of lightweight construction serves a multiple of needs including the protection from animals and privacy with its raised profile. As in Sekeping Serendah, the layout of the different sheds is designed to locate separately from each other, so the privacy of the occupants of each shed with its open design are ensured. Besides, the timber sheds are built on stilts to provide ventilation throughout the house as well as a certain degree of privacy with its raised height. Moreover, on the materials wise which are timbers and bricks that are solid enough to provide privacy from outside as well as the safety of the occupants. Therefore, it has come to a conclusion that both of these have a similarity in achieving optimum privacy and safe occupancy which is to build the houses on stilts in order to provide certain privacy for the occupants.

1.0 Introduction

1.1 Overview of Sekeping Serendah

Relationship between buildings with its context is one of the important features that we have to take into consideration in the design of the building. In Malaysia that is located within the tropical zone with plenty of forested lands, there are many opportunities and flexibilities that we can use to explore with the design of the buildings. However, the importance of the nature and environment have been neglected as many of the buildings are built by destroying the nature of the site.



Figure 1.1: Glass Shed in Sekeping Serendah.

Source: (Sekeping Serendah Website)

Chosen the site at Sekeping Serendah located in a forest at Rawang by architect Ng Sek San with his main intent of the conservation of the nature of the site. He explained that he is trying to build the societies and communities rather than just buildings. (Mah, 2013) Therefore, he introduced the open design strategy through the idea of transparency and openness together with the vernacular Malay houses architecture into the design of this retreat house. This idea of energy efficiency of the building is maintained while the idea of openness creates a connection between the occupants and the nature at the same time.



Figure 1.2: Glass Box in Sekeping Serendah.

Source: (Sepeking Serendah Website)

Sekeping Serendah was designed to create and enhance the connection between its occupants with the nature of the site. Therefore, the retreat house was designed without any boundaries, fences and doors to support the idea of openness. Besides, glass materials are used as one of the features of the open design strategy in the retreat houses. Upon this idea of transparency and openness resulting the issues of the privacy and safety of the occupants in the retreat house.

Thus, due to its open design concept, the privacy and safety of the occupants of Sekeping Serendah have to be taken into consideration to ensure an optimum achievement of safety. There are many methods that have been used and applied in Sekeping Serendah to ensure the privacy and safety of the occupants without scarifying the open design concept as well as the contextual elements of Sekeping Serendah.

1.2 Research Question

This paper will be discussing about how effective the open design strategy is implemented in Sekeping Serendah and also the different aspects of the open design that have been introduced in relation to the privacy and safety of the occupants. This paper will be focusing on the effective open design strategy of Sekeping Serendah in achieving the optimum privacy and safety of the occupants in accordance with the following questions:

1. How the design strategies of Sekeping Serendah achieves optimum privacy and safety of the occupants?
2. How effective is the open design of Sekeping Serendah in achieving optimum privacy and safe occupancy?
3. How the other design strategies are used to further improve the privacy and safe occupancy?

2.0 Open Design Strategies in Sekeping Serendah

The main concept for the openness and transparency of the Sekeping Serendah is to conserve the nature of the site as well as to enhance the relationship between the occupants with the nature. This concept of openness has been integrated and applied in many aspects of the Sekeping Serendah in order to enhance the connection of the occupants with the surrounding environment which included:



The design of the sheds without boundaries or fencing to maximize the connection of the occupants with the surrounding.

Figure 2.1: Timber Shed in Sekeping Serendah.



Glass is used as the main material for some of the sheds in Sekeping Serendah to enhance the sense of openness.

Figure 2.2: Glass Box which without closed walls.



Some of the sheds are built without walls so to enhance the relationship between the occupants with the environment.

Figure 2.3: Ware House built without walls.

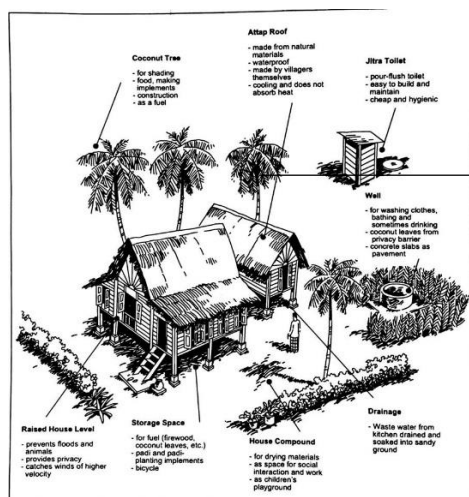
3.0 Design Strategies used in Sekeping Serendah in Achieving Optimum Safe Occupancy

The concept of openness has been applied in several aspects in Sekeping Serendah for example the glass materials used which is the most prominent evidence for this openness and transparency idea. But this might emerge some of the issues regarding the privacy and safety of the occupants of the Sekeping Serendah. So, some design strategies have been implemented in Sekeping Serendah against the privacy and safety issues of the occupants which included:

1. The layout of the sheds in Sekeping Serendah/ the arrangement of the spaces within the shed.
2. Construction methods used in achieving optimum privacy and safe occupancy.
3. Materials used.
4. Some other design features, e.g.: the louvre windows.

3.1 Layout/ Arrangement of the Spaces

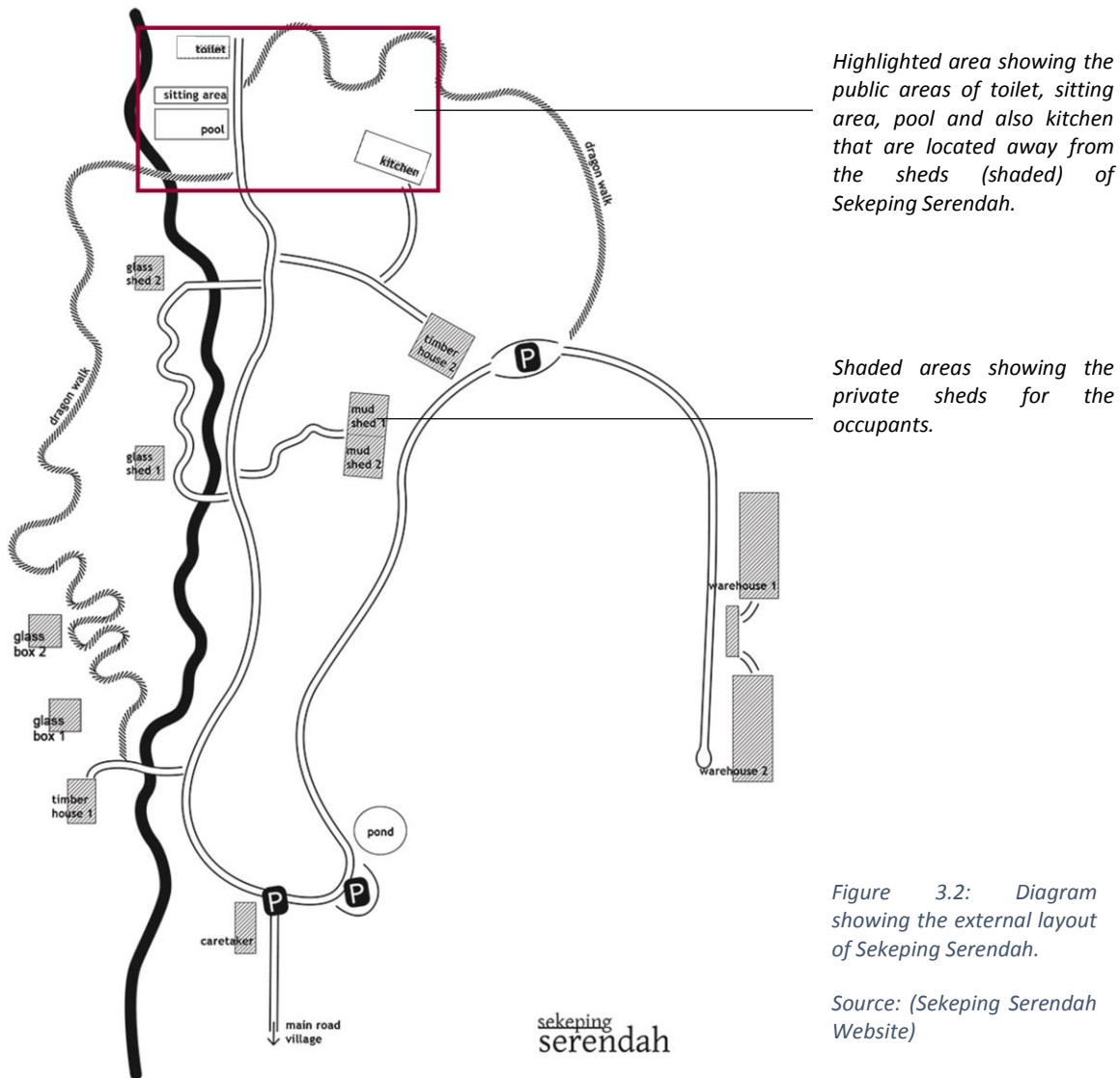
In the vernacular Malay houses, the houses are located separately from the other houses and also having a compound in which the crop-bearing trees such as coconut trees are planted to indicate the individual boundaries for privacy purpose.



Outdoor compound with coconut trees as the boundary around the house.

Figure 3.1: Diagram showing the external layout of a Malay house.

Source: (Yuan, 1987)



As in Sekeping Serendah, the different sheds in which including the Glass Sheds, Timber Sheds, Mud Sheds and also the Warehouses are also located separately from each other inside the forest. The arrangement of the sheds and other spaces are done in accordance with the function of the spaces. For example, the public areas like the kitchen, pools and also the sitting areas are situated away from the sheds to provide some privacy and space for the occupants. With this arrangement of spaces in Sekeping Serendah, the occupants will not be disturbed or interrupted by the other visitors or staffs when they are in their own shed.



The landscaping surrounding provide visual, climatic and environmental qualities while regulating the sightlines of the sheds.

Figure 3.3: Diagram showing the visibility to the glass shed being blocked by the surrounding trees.

Besides, taking the advantages from the site and environment of Sekeping Serendah which is located in a forest, a certain degree of privacy can be achieved naturally with the aids of the surrounding trees. The visibility from the outside can be reduced by the surrounding trees as to provide the some privacy for the occupants.



Bedroom
Outdoor balcony
Living space

Figure 3.4: Diagram showing the spaces in the Mud Shed in Sekeping Serendah.

Source: (Sekeping Serendah website)

As for the interior spaces of the sheds in Sekeping Serendah, the arrangement of the spaces are done in a way that the spaces located more to the exterior are for public activities such as the living room, balcony and kitchen. For the spaces that are more private such as the bed rooms are located more “inwards” in comparison with the public spaces.

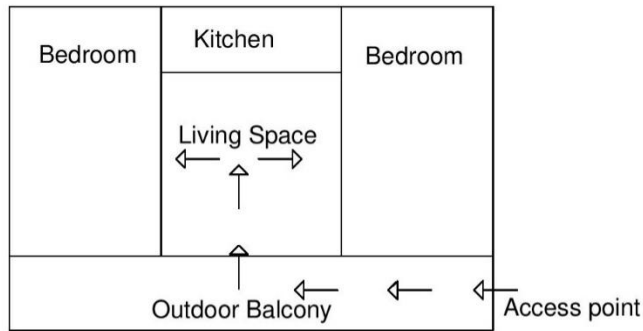


Figure 3.5: Diagram showing the arrangement of the spaces and the access point in one of the sheds in Sekeping Serendah.

The spaces in the sheds of Sekeping Serendah are arranged as shown in Figure 3.5 that the occupants or the visitors have to go through the public spaces such as the outdoor balcony and living space before entering the private spaces of the shed which are the bedrooms.

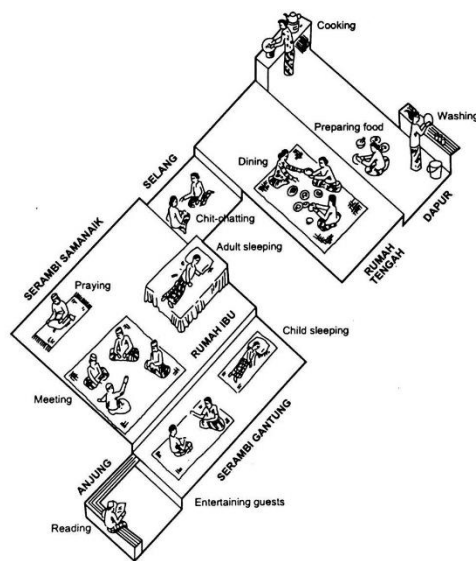


Figure 3.6: Diagram showing the arrangement of the spaces and the access point in a vernacular Malay house.

Source: (Yuan, 1987)

The arrangement of the spaces within a Malay house was done according to the function of the spaces as well, such as the provision of a private space for the womenfolk and also a public space for the entertaining of male guests.

3.2 Construction Methods

There are a few construction methods that have been introduced in Sekeping Serendah in relation with the vernacular Malay houses in order to achieve optimum privacy and safe occupancy. First of all would be the construction of the sheds on stilts to increase the height of the sheds in Sekeping Serendah.



Concrete stilts.



Concrete stilts.

Figure 3.7 (above), 3.8 (bottom):
Diagrams showing the Warehouse
and Timber Shed in Sekeping
Serendah that are built on stilts.

All of the sheds in Sekeping Serendah are built on stilts to increase its height as to provide protection against wild animals as it is located inside a forest as well as enhancing cross ventilation throughout the sheds as how it works in the vernacular Malay houses.

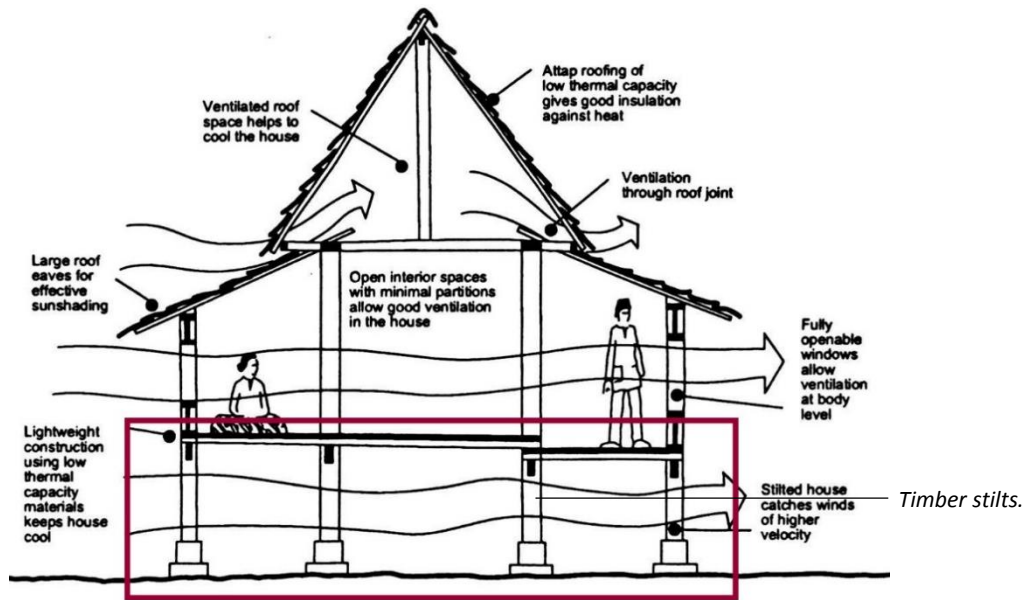


Figure 3.9: Diagrams showing the sectional drawing of the vernacular Malay house.

Source: (Yuan, 1987)

The vernacular Malay houses are built with increased height on the timber stilts in which the main purpose is to catch the winds of higher velocities for the ventilation of the houses. Apart from the ventilation purpose, the stilts also provide a protection to the occupants of the house against wild animals and flood as well as to provide a certain degree of privacy with its increased height.

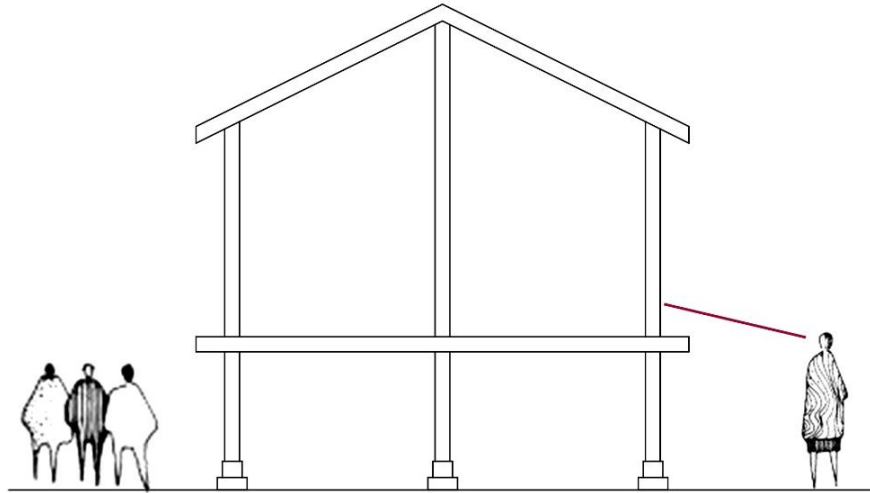


Figure 3.10: Schematic diagram showing the section of the sheds in Sekeping Serendah.

With the increased height of the sheds on those concrete stilts, the visibility of the other occupants or staff can be reduced from outside (as shown in Figure 3.10) in solving the question of the privacy and safety of the occupants in Sekeping Serendah.

3.3 Materials Used

The other design strategy that has been introduced into the design of Sekeping Serendah in resolving the issue of privacy and safety of the occupants is the materials used for the construction. Although the main concept of the Sekeping Serendah is the idea of openness and transparency as to create the connection between the occupants with the nature, but some of the sheds are built with different materials rather than just glass. The other materials that are used in Sekeping Serendah such as the timbers, bricks and muds are able to provide the occupants an enclosed personal space in response to the privacy of the occupants.

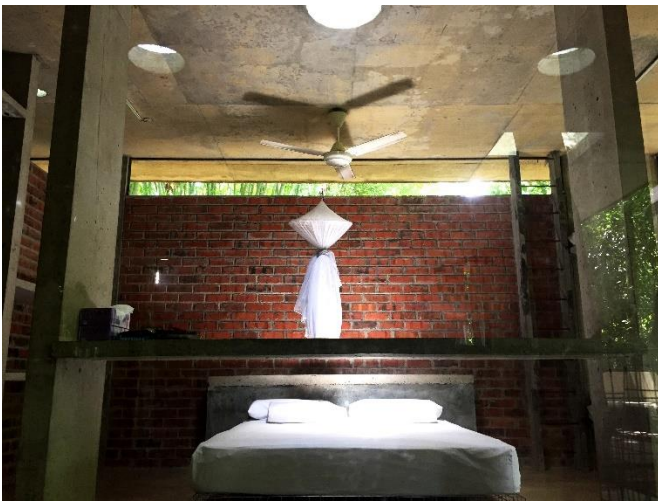


Louvre windows for ventilation purpose.



The material timbers that are used in vernacular Malay houses have been introduced into the design of Timber Sheds in Sekeping Serendah as well. With this material of timber that is more solid and rigid in comparison with the material of glass, a private enclosed space can be provided for the occupants without compromising the ventilation of the space through the louvre windows.

Figure 3.11 (Above), 3.12 (Bottom): Diagrams showing the Timber Shed in Sekeping Serendah.



The other materials that are used in providing privacy to the occupants in Sekeping Serendah are the bricks. Most of the brick walls in Sekeping Serendah are used as the “walls” for the toilets (Figure 3.13) or boundaries of the sheds (Figure 3.14) instead of acting as a structural element of the sheds. The brick walls are used to ensure more privacy for the occupants of Sekeping Serendah.

Figure 3.13 (Above), 3.14 (Bottom): Diagrams showing the brick walls in Sekeping Serendah.



The last material that is used for the consideration of the privacy of the occupants is the mud. The Mud Sheds in Sekeping Serendah are built with mud in which assure an optimum privacy of the occupants.

Figure 3.15: Diagrams showing the Mud Shed in Sekeping Serendah.

3.3 Other Design Features

After looking at the three main design strategies that have been applied in Sekeping Serendah in response to the question of privacy and safety of the occupants, now we are going to discuss about some other design features that have been introduced in Sekeping Serendah as well in order to further improve and enhance the safety and privacy of the occupants.



Figure 3.16 (Left), 3.17 (Right): Diagrams showing the screenings/ louvre windows used in Sekeping Serendah.

Some of the glass windows in Glass Sheds have been integrated with screenings (louvre windows) to provide the space a sense of security without scarifying the openness of the design concept. Besides, these screenings can act as the sun shading devices as well to reduce the heat gain inside the sheds. Curtains are added in Glass Box as well for better privacy occupancy.



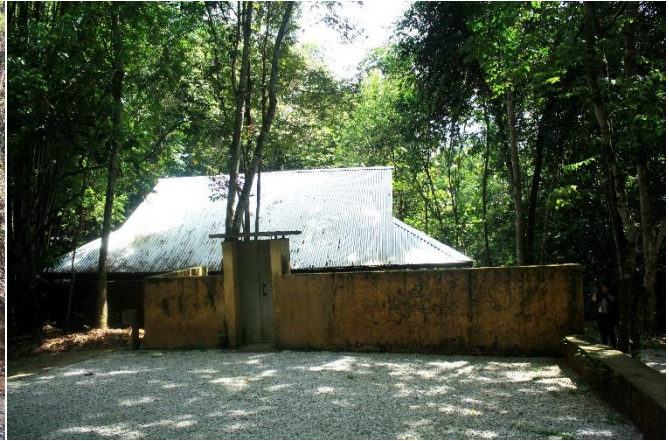
Figure 3.18: Louvre window in Glass Sheds.



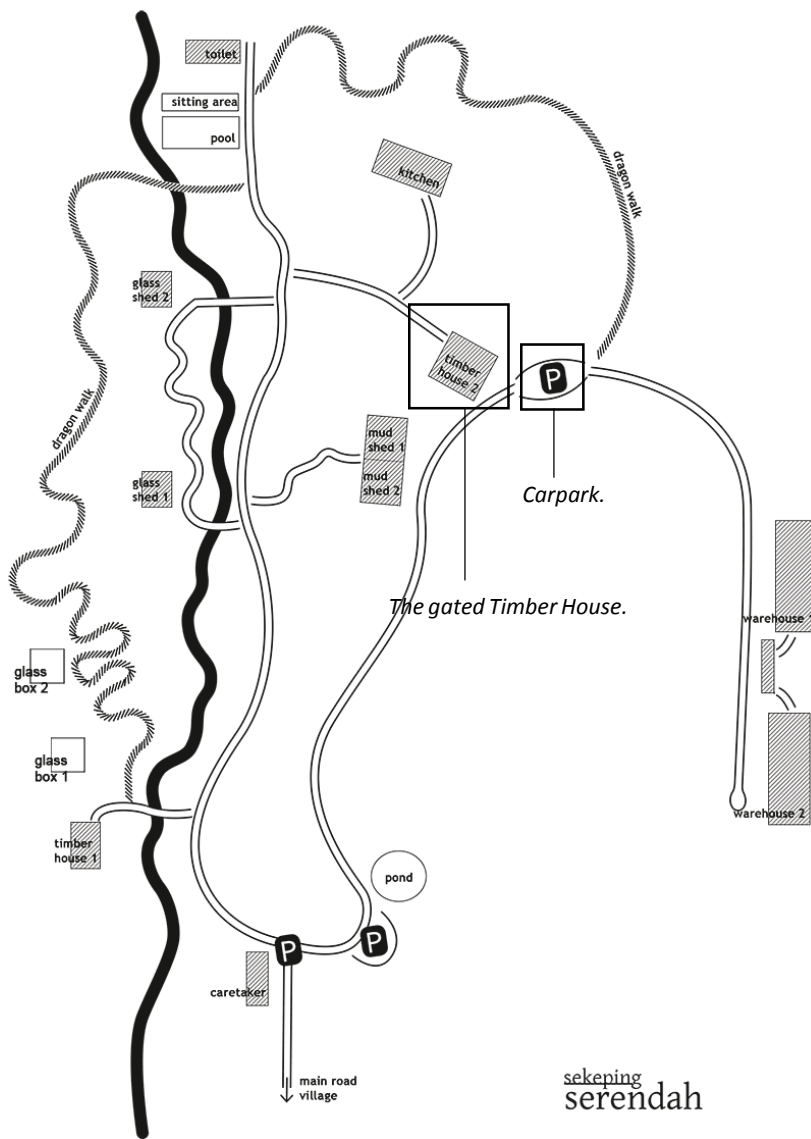
3.19: Curtain used in Glass Box.



Figure 3.20: Louvre window in Glass Sheds.



3.21: Curtain used in Glass Box.



Besides, there is a small gate door built for Glass Box 2 in order to protect the occupants from outsiders as well as the wild animals. The Timber House 2 is built with a boundary of mud wall as well because of its location that is nearer to the car park of Sekeping Serendah. The boundary is built to protect the security of the occupants against outsiders.

Figure 3.22: Diagram showing the locations of the gated Timber house and car park.

Source: (Sekeping Serendah website)

4.0 How to Further Improve the Privacy and Safe Occupancy in Sekeping Serendah

The design strategies that have been applied in Sekeping Serendah to achieve optimum privacy and safe occupancy are functional and useful. But these strategies are only applied in some of the sheds in Sekeping Serendah in which the other sheds that are not applied with these circumstances might be facing the issue of privacy and safety.

From the interviews with some of the occupants of Sekeping Serendah during the visit, some of them revealed that they have encountered with the situation where there are stray dogs entering their kitchen in search for food. The reason for this issue is that a gate door or boundary is missing in some of the sheds in Sekeping Serendah. This could be very dangerous if there are outsiders entering the sheds and it might cause some unnecessary injuries or incidents.

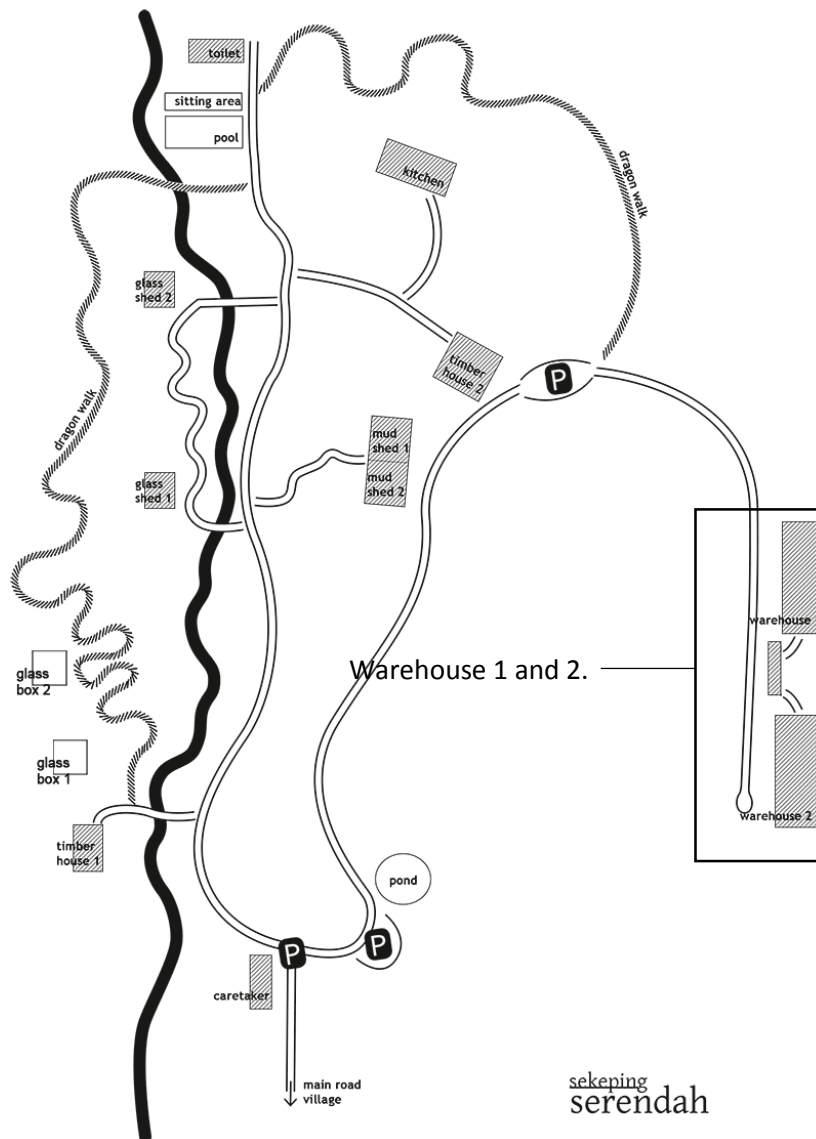


Figure 4.1): Diagram showing the locations of the Warehouses.
Source: (Sekeping Serendah website)

Due to my observation and several researches about Sekeping Serendah, I've found out that the Warehouses have to take into more consideration about the privacy and safety of the occupants living there. The Warehouses are constructed without any fixed walls and gates surrounding the houses. It is very dangerous as the outsiders or wild animals could sneak into the house anytime.



Figure 4.2 (Left), 4.3 (Right): Warehouses without fixed walls/ fencing to protect the occupants.

Therefore, my suggestion is to add external fencing/ railings to provide a clear indication of the personal space for the occupants of the Warehouses. With the external fencing/ railings installed, the sense of privacy can be enhanced as well as to improve the security of Sekeping Serendah as the outsiders or wild animals cannot sneak into the houses easily.



Figure 4.4: Galvanized wrought iron fencing.

Source: (Hardyfence.com)



Figure 4.5: Brick fencing.

Source: (Makofencing.com)

There are several choices of external fencing/ railings available to further improve the security of the sheds in Sekeping Serendah. For example the galvanized wrought iron fencing is suitable due to its strength and durability. Besides, brick fences can be constructed as well to provide a better sense of security to the occupants of Sekeping Serendah and is more suitable due to the tropical climate.

With the installments of the external fencing/ railings, the privacy and safety of the occupants can be enhanced and secured without scarifying the concept of the openness and transparency of Sekeping Serendah.

5.0 Conclusion

In a nutshell, safety and privacy of the occupants have to take into deep consideration while designing a building with the idea or concept of openness. A building is not called success if the optimum privacy and safety occupancy cannot be achieved. As for the Sekeping Serendah, they have considered a lot about the privacy and safety of the occupants while designing it. We can see it first from the layout of the different sheds and spaces located accordingly in the Sekeping Serendah. Besides, by integrating the idea of the open design with the vernacular Malay houses architecture, they have come out with a unique and iconic design of retreat house in Sekeping Serendah. Prominent evidences can be seen from the increased height of the sheds located on the stilts, installations of louvre windows for ventilation purpose, large overhangs for sun shading, the open interior spaces that enhance cross ventilation as well as the light-weight construction that can be seen from those vernacular Malay houses. Sekeping Serendah has achieved the idea of openness and transparency integrated with some of the elements of the vernacular Malay houses without scarifying the privacy and safety of the occupants. There are only some aspects that have to look into such as the installation of the fencing so that the optimum privacy and safe occupancy can be achieved.

6.0 References

1. Alakhram, A. (n.d.). *Architecture History of Malaysia Houses*. Retrieved 20 June, 2016, from <http://www.slideshare.net/alialakhram/architecture-history-of-malaysia-houses>
2. Hardy Fence. (n.d.). *Wrought Iron vs. Galvanized steel Fencing Hot dipping wrought Iron*. Retrieved 20 June, 2016, from <http://www.hardyfence.com/wrought-iron-fences2.html>
3. Janzen, C. (n.d.). *Theorizing Vernacular Architecture in Malaysia*. Retrieved 20 June, 2016, from <http://connorjanzen.com/vernacular-malaysia/>
4. Mako Fencing & Gates. (n.d.). *Mako Fencing & Gates - Brick Fence Gallery*. Retrieved 20 June, 2016, from <http://www.makofencing.com.au/brick-fences/>
5. Nasir, A.H. (1985) *Introduction of Traditional Malay House: Peninsular Malaysia* Darulfikir: Kuala Lumpur.
6. Sekeping Serendah. (n.d.). *All Sekeping/ Serendah*. Retrieved 20 June, 2016, from <http://www.sekeping.com/serendah/>
7. Yuan, L.J. (1987). *The Malay House: rediscovering Malaysia's indigenous shelter system/ Lim Jee Yuan*. Institut Masyarakat.

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