

## 論文の要旨

題目 The “Open Veranda” (“*Emper Terbuka*”) by Friedrich Silaban  
(フリードリッヒ・シラバンにおける「オープン バランダ (エムペル・トゥルブカ)」)

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Friedrich Silaban (1912-1984) was one of the first-generation architects in the development of modern architecture in Indonesia. He emphasized modern tropical concepts for Indonesian architecture, as explained in his article, “Architectural Idealism and the Reality in Indonesia,” presented at the Second National Congress of Indonesian Institute of Architects on December 3, 1982. In this article, he considered seven points to be designed in tropical countries, including the “open veranda” (“*emper terbuka*”) as a required space in Indonesian houses. At the end of this article, he formulated his ideal house criteria that underlined the application of open veranda (*emper terbuka*) as an element for ideal houses. It obviously affirmed the importance of open veranda notion (*emper terbuka*) in Silaban’s architectural ideas.

The term “*emper terbuka*” is a combination of the words “*emper*” and “*terbuka*.” According to the official Indonesian language dictionary, the word “*terbuka*” means open; not closed; revealed, while the word “*emper*” means veranda. In architecture, a veranda can be defined as an open porch or balcony, usually covered, extending along the outside of the house or other buildings. Veranda existence in Indonesia has been identified since the period of vernacular architecture (10.000 BCE-200 CE) as one of the houses’ outer spaces. Veranda is mostly located at the front of a house as a public space where the households socialize and chat with neighbors, friends, passerby as well as informally welcoming the guests, relaxing, and enjoying the neighborhood.

Silaban mentioned the term of open veranda (“*emper terbuka*”) in the congress article published at the end of his career. Before 1982, he typically used the term “veranda” (“*emper*”) and also “open veranda” (“*emper terbuka*”) only for one description in an unpublished article draft (1950s-1960s). It showed Silaban himself passed through some processes to establish his notion of open veranda (*emper terbuka*). This notion is the most closely related to the concept of Indonesian houses, which is the keyword of Silaban’s residential designs. The open veranda (*emper terbuka*) is one of Silaban’s design elements that consistently existed in his works, including residential designs. Based on Silaban’s archive collections, he had designed some residential projects, including the private house projects since 1930s. He started using the term “*emper*” (veranda) in 1950s. It showed that he also got through some processes to develop open veranda (*emper terbuka*) in his private house projects.

This study will provide a comprehensive understanding of Silaban’s notion on open veranda (*emper terbuka*) by analyzing his textual documents and architectural designs. In addition, this study aims to clarify the formation of Friedrich Silaban’s notion on open veranda (*emper terbuka*) and the formation of open veranda (*emper terbuka*) in his private house projects.

This dissertation is divided into six chapters. The main points of each chapter are as follows:

Chapter 1 introduces the background and describes the objectives of this study. It then clarifies the previous studies and the position of this research. Furthermore, the materials, methodology, and structure of this dissertation are shown.

Chapter 2 provides Silaban's background and professional careers. Silaban studied under the Dutch Indies School, *Koningin Wilhelmina School* (KWS), majoring in the *bouwkunde* (building science). He passed through three periods in his architectural careers. In his early career (1930s-1940s) during the late colonial periods, Silaban worked as a Dutch government staff and performed a private architectural practice as a young Dutch Indies architect. After Indonesian independence (1945), he took a year course in *Academie voor Bouwkunst* Amsterdam and received an architect profession certificate in 1950. In his peak of career (the 1950s-1960s) during the Old Order period, Silaban won three national design competitions in 1954-1956 that raised his reputation as a national architect. He then designed many public and residential buildings in 1955-1965. He applied modern tropical architecture, which was in line with the Indonesian national identity in this period. In the last period (1970s-1980s) during the New Order period, Silaban became a vice chief of Istiqlal Mosque construction project and an architect of other private projects. During the second and third periods, Silaban wrote some texts that explained his ideas for modern Indonesian architecture, namely the journey reports to Japan and India (1954) and the article for the second National Congress of Indonesian Institute of Architects (1982). He emphasized the connection between architecture with the climate, geographical location, and society's life pattern. These factors were transformed into modern architecture using new materials and construction. Therefore, modern Indonesian architecture should correspond to the tropical characteristics of Indonesian architecture and Indonesian life patterns. In this context, Silaban pointed out the open veranda (*emper terbuka*) as a required space in Indonesian houses as one of his notions for designing modern tropical architecture.

Chapter 3 clarifies the formation processes of Silaban's notion of open veranda (*emper terbuka*) through an analysis of his textual documents mentioning the description of open veranda (*emper terbuka*). In the first period (1954-1957), he identified the relation between various veranda forms with the local climate and veranda influences on building expressions as he noted in his journey reports to India (1954) and the United States of America (1957). In the second period (1950s-1960s), through his unpublished article draft, he emphasized the combination of open veranda (*emper terbuka*) and roof eaves that influenced the clarity of building facade. In the third period (1970s-1980s), he discovered the essence of open veranda (*emper terbuka*) in Indonesian vernacular houses for modern tropical architecture as both a social space and a tropical climate modifier mentioned in his article for the second National Congress of Indonesian Institute of Architects (1982). The analysis of these texts reveals that Silaban's notion of open veranda (*emper terbuka*) formulates several references to Indonesian indigenous architecture and other countries' architecture in terms of historical and modern buildings. These descriptions include the theme of function and climate adaptation to create a modern form. Therefore, the notion of open veranda (*emper terbuka*) represents a unique element of Indonesian houses and a universal element in architecture.

Chapter 4 discusses Silaban's approaches as an architect who practiced in a modern era to apply the notion on open veranda (*emper terbuka*) that represents both Indonesian and universal characteristics. The author clarifies the formation process of Silaban's design methods for creating the

open veranda (*emper terbuka*) through a chronological analysis of private house project design documents from 1930s until 1968. The design analysis focuses on the planning composition of open veranda (*emper terbuka*) and roof eaves design that Silaban's mentioned as it relates to the theme of function and climate adaptation in traditional Indonesian verandas. The analysis of these designs reveals that Silaban applies four design methods regarding spatial composition and roof's eaves design that have some relationships with traditional Indonesian verandas by using a new approach. Regarding spatial composition, before 1950s, Silaban applied the front and side terraces. In 1950s, he applied a large front veranda as a primary social space, which evolved from a front veranda composition to a combination of front and back verandas and integrating them with interior and exterior as the reformation of spatial composition. In 1960s, he developed various compositions of the open veranda (*emper terbuka*) by combining the front and back verandas or side one. Meanwhile before 1950s, regarding the roof's wide eaves design, Silaban only applied enough flat concrete eaves with the side terrace that was not fully covered. Further, he applied hipped roof and gable roofs with wide eaves to provide shade and developed concrete roof and the combination of a hipped roof and gable roof with concrete roof and concrete shading.

Chapter 5 continues chapter 4's discussion by analyzing Silaban's approaches as an architect who practiced in a modern era to apply the notion on open veranda (*emper terbuka*) that represents both Indonesian and universal characteristics. The author specifically clarifies the formation processes of Silaban's design methods for creating the open veranda (*emper terbuka*) in the realization of Residence of Lie A Hong (1968-1969) as the completed design and Silaban's finally realized private house project. We analyze four terms of this residence design process and reveal that Silaban applied multiple veranda compositions that combined front and back veranda, forming an axis with additional side verandas. The existence of this axis is developed from a spatial composition where the axis view to the exterior is blocked on the back and front sides, and finally perfectly integrated with the exterior. Comparing to previous private house designs in chapter 4, Silaban applied this method from his prototype veranda composition in 1958 and 1960. On the other hand, he combined the roof's eaves with concrete shading to maximize the shade and block the afternoon sun rays by developing his method in 1958 and 1966. Silaban's shading design for Residence of Lie A Hong also influenced his approach to the preliminary designs of house in 1978.

Chapter 6 provides a comprehensive discussion and analysis of Friedrich Silaban's idea of open veranda (*emper terbuka*) based on each chapter's findings. Through these chapters, the author clarifies that Silaban's notion of open veranda (*emper terbuka*) has a dual character that simultaneously reflects Indonesia's unique subject and the universality. Silaban applied the large front veranda as a primary social space that evolved into various veranda compositions by combining the front and back verandas or side one and integrating them with the interior and exterior. Silaban developed the roof's wide eaves design by combining a hipped or gable roof with concrete roof and concrete shading. The open veranda (*emper terbuka*) was a mechanism to interpret the indigenous climate and modern architecture in Silaban's residential designs. Furthermore, this chapter presents some future research directions in Friedrich Silaban's notion and designs of open veranda (*emper terbuka*).