

Vernacular Contribution to Dutch East Indies Heritage Architecture in Indonesia: The Case of *Jaarbeurs* Building

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Abstract

As a colonized city in Indonesia, Bandung City was built by the Dutch between the nineteenth century and the first decade of twentieth century, becoming the most European City in Java. Dutch architects have been instructed to design government offices, and commercial and residential buildings in western styles. However, they have adapted those styles to the tropical climate, to protect buildings from the sun and rain, and to fully express the character of the Dutch East Indies Architecture. It has resulted in Dutch East Indies Architecture being European and Native as well colonial but indigenous at the same time.

As known, the First World War created problems in the Dutch East Indies. The representatives from the banks, commerce, industry and the press, took the initiative of establishing permanent *Jaarbeurs* (annual expo). Accordingly, buildings in modern styles have been designed. Thus, Dutch East Indie architecture from 1900-1940 developed an interaction between the rational West with its technical solutions for the problems of tropical climate and the 'mythical East' with the cultures, religions, Nature, and traditional architecture. In this context, this paper raises two research questions: first, how does vernacular link to modern Dutch East Indies Architecture and second, what is the contribution of vernacular approach to this Architecture.

This research collected data from case studies involving observations and interviews with a historian who conducted research of *Jaarbeurs* in Bandung and heritage architects.

Traditionally, architecture was represented from concept, culture, craftsmanship and other aspects. The Dutch architects have brought indigenous architectural values and elements, merging them with modernity as a way to establish identity of East Indies. They have created a new manifestation.

Keywords: Vernacular, Interaction, Culture, Architecture, Context. Dutch East Indies Architecture, Indonesia, Colonization.

Introduction

When the cities were planned and built by foreign nations due to colonization, they were surely influenced by other nations, but in return, they also affected the nations who came to colonize. As a colonial city in Indonesia, Bandung was built by the Dutch between the nineteenth century and the first decade of the twentieth century and it became the most European City in Java. In 1940, 30.000 people out of 240,000 in the city were European (Dulleman, 2010). Dutch architects were instructed to design government offices and commercial and residential buildings using western architectural styles. Thus, despite the political intention of the Dutch to give equal rights to the Indonesian nation, Western architects incorporated their knowledge and traditional ideas and debated about their adaptation to the tropical climate: how the buildings could be protected from the sun and the rain, and how the buildings could fully express the character of the East Indies.

Despite this, there is a paradox in Dutch East Indies Architecture: it is European and Native, as well as colonial but indigenous at the same time, and all of that is contained in one object. What seems contradictory, actually unites, strengthens each other, and produces a new culture including architecture within it. With advanced architectural technology, the context of the building is considered with the cosmology, worldview, and lifestyle of the Indonesian people.

The establishment of buildings modelled on a Dutch house was originally very much tied to Dutch nationalist characteristics. This is understandable as they brought Dutch art with them, and were gradually influenced by the nature and society around them which was very foreign to them. They also understood the need to pay attention to health by adapting buildings to different climates, buildings that provide comfort in all activities carried out in the house.

Vernacular is seen widely as stable, representing enduring values, and therefore authentic. The opposition is between active and passive building traditions. The vernacular is thus seen as traditional. Vernacular traditions have not all vanished, but in many cases have merged with modern ones to create new manifestations of tradition or localized hybrid forms that better suit current circumstances and requirement (Asquith & Vellinga, 2006). Bernard Rudofsky (1956) argue that vernacular architecture does not go through fashion cycles. It is nearly immutable, indeed, unimprovable, since it serves its purpose to perfection. The terms 'traditional' and 'vernacular' have also been used interchangeably because tradition is synecdoche for vernacular. This is because the qualities that we associate with traditions are also found in vernacular. However, tradition in the obvious sense of a visible past inheritance can only be partly helpful, for reality today is different (Curtis, 1956).

To develop an understanding on how vernacular is a valuable wisdom for Western architecture to adapt to local environment and community contexts, this paper poses two research questions as follows.

1. What is the contribution of vernacular approach to Dutch East Indies Architecture?
2. How is vernacular relevant to understand the values of Dutch East Indie Architecture?

The purpose of this paper is to provide some knowledge through the vernacular lens on its contribution to modern Dutch East Indies Architecture and the relevance of vernacular architecture in modern architecture during colonization in Indonesia. The benefit of this discussion is to contribute to an understanding of why vernacular today is still valuable and relevant to the Dutch East Indies Architecture.

The Theoretical Basis Vernacular Architecture

Vernacular studies are usually multidisciplinary. Many scholars recognize that vernacular is related to people, society, culture, geography, history, anthropology, archaeology,

and also to architecture as the context in which all vernacular exist. Architecture however is only one part of vernacular because it exists in vernacular food, languages, religions, rituals, dresses, photography and indeed habits, values and attitudes among many other aspects of a society.

To form an understanding of vernacular architecture: the physical buildings and all the building values, a significant amount of data must be gathered. Studying vernacular architecture requires comprehensively accommodating cultural diversity, while acknowledging the reality of difference and conflict.

Vernacular architecture encompasses various buildings, including factories, farms and houses - schools and separate houses with all their sights, mills, agricultural areas, fields around towns and business strips (Wells, 1982). By definition, vernacular architecture comprises people's dwellings and all other buildings made for them, by themselves without any professional interventions. Related to their environmental contexts, and available resources, this type of architecture is customarily built by the owners or the communities themselves using traditional technologies. However, in 'learning from vernacular', rather than giving a tight definition and working with ideal types, understands the human-environment (any kind of environment) interaction as more useful (Rapoport in Bretonne, 1979). Indeed, all forms of vernacular architecture are built to meet the specific needs, accommodating the values, economies and ways of living of the cultures that produce them (Oliver, 2006). It could be said that vernacular architecture exists when environmental conditions prevail, as well as when material and purposes prevail.

As knowledge, vernacular architecture provides a structure of thought that reveals the relationship between the environment and the conditions of its existence to find an appropriate response to the environment. It starts with both understanding and reasons for the existence of a product as well as practical actions to pursue environmental adequacy (Sofyanto, 2008). Vernacular architecture is the result of constrain on resource availability, was built on inherently sustainable principle as resource natural factors, yet succeeded in offering rational solutions to human needs.

Analysis of vernacular environments has moved away from viewing only the artefact, and has focused attention to people who shape, use, and alter the forms (and in turn are influenced by it). In early vernacular studies, the artefact was first viewed and conclusions about people were drawn from it. Here, we approach the artefact from different directions. The importance of the form itself has remained an element of vernacular frameworks (Kellet, 2011). The function of the building would be the dominant factor, aesthetic consideration, though present to some small degree being quite minimal (Burnskill, 2000).

Vernacular architecture is associated with processes, social relationships, localities, and products. The process is not only that of construction, but knowledge, skills, and values as passed on and simultaneously accepted when the preparation started. The process is a continuous activity as no single person is always present and adaptations are likely to be made to accommodate these changes. Adaptations are likely to occur to accommodate these changes. These adaptations can be seen, for example, through spaces that are widened due to needs and decorations that increasingly highlight aesthetic values.

Unlike conventional architecture based on sets of academic models and defaults, vernacular architecture has developed on a free reconstruction and modification based on creativity, need, and application. Vernacular architecture is based on native human being's understanding of space, Nature, and the forces within it. It is a subjective phenomenon, although it is also objective. It does not rely on formal contracts and is free to operate (Oliver, 2007).

Vernacular in Indonesia is the understanding of the whole sequence of human learning process to build their settlement based on man-environment interaction. Heath (2009) states that vernacular architecture represents a localized response to broad cultural systems, historical events, and environmentally determined regional forces. As such, vernacular architecture often points to an observable condition of dynamic cultural and environmental change; it speaks of transition rather than stasis. It marks a liminal period, a threshold of conscious change and accommodation expressed in built form, whereby simultaneous identities result.

Garden City in Bandung

The Garden City movement is one of the remarkable urban planning methods initiated in 1898 by Ebenezer Howard in United Kingdom. From his publication: *To-Morrow: A Peaceful Path to Social Reform* (1898), it describes a utopian city in which people live harmoniously together. He called these places “magnets”, where people would want to come to reside and work. His garden cities were planned, containing communities surrounded by a green belt (parks), containing proportionate areas of residences, industry and agriculture. This movement aimed to combine the benefits of the countryside and city environments while avoiding the disadvantages of both. Howard wanted to combine the cultural and educational opportunities of city life with the healthy and soul-sustaining benefits of country life in a balanced and self-sufficient form of settlement (Doordan, 2001). The planning of Bandung combined various aspects of local values such as mountain-oriented axis, the dualistic character of village and city, tropical architectural design, and vegetation and organic urban scape, which adapted the garden landscape of Howard (Nix, 1946 in Susanto, 1992). The adoption of the European Garden City in Indonesia, at the same time employing local content, was also first applied in dwelling quarters in the North Bandung area (Indah 2015).

Huib (1996) in “Ir. F.J.L. Ghijsels, Architect in Indonesia, 1910-1929” notes, Ghijsels as an architect who introduced Garden City Concept in Bandung. Frans Johan Louwrens Ghijsels, a Dutch architect born on 8 September 1882 in Tulungagung, Central Java, Indonesia, after his graduation from the Technical High School of Delft (now Delft Technical University) and a trainee as an architect, he came to East Indie and was employed in the Municipal Works Department as an architect. In 1916, Ghijsels and two other architects established AIA – *Algemeen Ingenieurs en Architectenbureau* (General Engineers and Architects Bureau) in Batavia. As an architect, Ghijsels was asked to work on the Bandung urban plan when it was decided to transfer the Government Headquarters from Batavia to Bandung. The Garden City model became a Bandung City planning concept.

The colonial period was a defining one, as it was the beginning of the characterisation of the cities and urban spaces in Indonesia (Gunawan, in Rakhmanita, 2022). Ignasia (2008) states that colonial settlements were built for the residences of the Dutch and had the form of houses and supporting facilities that characterized the Dutch architecture.

In general, cities that were built during the Dutch Colonial era were oriented towards the interests of the Westerners and the other Europeans. There are also two shades of the distinction between Western and indigenous groups (Wheatly, 1983). Because of the characteristic that is implemented, the city of Bandung is called *Plan Der Negorij Bandoeng* (Plan of Residence in Bandung). The most striking aspect of this was the separation of the indigenous part in the South and the European Area in the North, by *Groote Postweg* (Post Road), as seen in the drawing in pink line (Fig. 1)



Fig. 1: 1920 Bandung Map

Source: KITLV (The Royal Netherlands Institute of Southeast Asian and Caribbean Studies)

Around 1920, Bandung was declared a modern colonial city and rapidly became a growing urban area. It was introduced into the Golden Age of a modern urban economy, dominated by the European building styles, and it was envisaged to become the new capital for the Netherland-Indies (Widodo, 2003). The urban design was based on “the Garden City” idea, aimed at the creation of “Tropical Europe” and “Indo-European Style” for the European population (*Europesche Zaakenwijk*). Within the new Garden City of Bandung, various new functions such as schools, hospitals, museums, and research institutions, were also constructed amid large modern villas with a distinct hybrid character of tropical-neo-vernacular style (Widodo, 2003)

Dutch East Indies Architecture

The presence of the Dutch in Indonesia influenced the Indonesian lifestyle. From here emerged a new culture, which is a mixture of Dutch culture elements and indigenous culture elements, including the form of traditional houses and the function of spaces. The combination of traditional house forms and Dutch building forms is called "Indo-Europeesche Bouwkunst", by Berlage, "Indische Huizen" by Van de Wall, and "Indische Architecture" by Parmono Atmadi (Soekiman, 2014). Indische culture is a historical phenomenon because it produces cultural works that are determined by various factors, namely political, social and economic.

In addition, more than 10.000 islands of the archipelago have been influenced by the “mystical East”, the unfamiliar cultures and religions and overwhelming tropical nature of the Dutch East Indies and the traditional architecture of many different population groups. Various aspects of local architecture were gradually adopted by the Dutch builders in the course of the first three centuries of Dutch presence in the archipelago. This process of “orientalisation”, as Van der Wall calls it, has led to an individual architectural style that can be defined as “international colonial” or “old colonial”.

Historically, the lifestyle and culture of the Indies were closely related to colonial political factors, and the colonial political situation required the authorities to have cultures and lifestyles from those of the indigenous people. This was also the case for their residence and building construction, which had to be different from the local one. The purpose was to show their identity as the ruling group and to differentiate their position from that of indigenous people.

The use of Indonesian style ornaments and constructions had been the architectural translation of the ethical politics behind a new political and cultural current aimed at more equal relation between the Netherlands and its colony in the East Indies. The search for a specific East Indie architectural style was in line with this so-called “association” idea. In the field of practical politics, this was reflected above all in the establishment of the People’s Council (*Volksraad*) in 1918 (Soekiman, 2014)

Literature Review

Widodo in Naas 2007, described that beginning in the early nineteenth century, eighteenth-century survivalist architecture was gradually replaced by architecture adapted to the environment. Uncomfortable living conditions were the main reason for this change. For the sake of physical and environmental comfort, architects began using local building materials and learning and reproducing vernacular language. These adaptation made living conditions inside the building much more tolerable and climatically comfortable. The architectural style of the buildings was more connected to and in harmony with the vernacular typology. Environmental adaptation continued through a process of cultural accommodation. Europeans embraced local lifestyles, local social norms, local cultural traditions and local spatial concepts Hybridization as a result of climatic adaptation and cultural assimilation marked a new stage of architectural maturity.

Mutmainah and Kurniawan (2018) stated that the development of architectural discourse as a representation of Indonesian identity is divided into three phases, namely the end of Dutch colonial era (1920 – 1940), early independence (1957 – 1965), and post-colonial Indonesia (1965 – 1998). End of Dutch Colonial period (1920-1940) is a period when ethical

politics became a turning point for the utilization of the Eurocentric-tending modern architecture to consider indigenous sides and locality on the colonized area. The domination of Dutch architects led Indonesian traditional architects into the experiment with Western architecture to find a new one. Traditionally was represented variously, from concept, culture, material, craftsmanship and other architectural aspects. From As explained by Tjahjono (2002), the concept of tradition is not something isolated. In architecture, there will emerge traditionality and modernity aspect as a manifestation of development of architecture field of study.

Jaarbeurs was built on 1920-1921, under the late Dutch Colonial period. As mentioned, during that period was consider as turning point for the utilization Eurocentric-tending modern architecture, so that here was a new form of architecture concept, material, craftsmanship and other aspect. Through a case study in this discussion, it can be seen concretely how the implementation of this hybridization occurred in commercial building, designed by Dutch architect. The building ‘in modern style’ was designed for a group of progressive entrepreneurs soon after Wolff Schoemaker trip to America in 1917. Since the building introduced Wright’s idea in the Dutch Dutch East Indies, the *Jaarbeurs* became genuinely modernist building in the colony (Dulleman, 2010).

Architecture is a conversation between generations, that creates environment developing across time (Scully, 1989). This conversation carried out across time, and architecture may present something from the other side of understanding. From his research conducted between 1989 and 2006, as well as his doctoral thesis, Dulleman has found that Dutch East Indies Architecture in 1900-1940 developed an interesting aspect of the interaction between the rational West and with its technical solutions for the problems of the tropical climate and the “mythical East”, the culture, religion, nature and traditional architecture that attached to the local context

Case Study Description: Jaarbeurs Building

The First World War created problems in the Dutch East Indies. Many daily necessities were still imported from the United States or Japan during the early years of the war, and even the simplest goods were imported from the West. In a country with such rich resources, this situation led to the formation of a committee in Bandung to stimulate the industry of the Dutch East Indies. This committee comprised representatives of banks, commerce, industry and the press, and took the initiative of establishing permanent a *Jaarbeurs* (Dulleman, 2010).

The *Jaarbeurs* was the link in the commercial transaction between producer and reseller; it was an entity especially important in times of malaise supports trade and provided economic services. The expo usually lasted for approximately a month, and it was critical in the calculation of economic life. The advertisement of the expo informed the exhibition period and the exhibition included crafts, modern and home industrial works, natural products, health services, home improvement, and cultural performances. Figure 2 shows the advertisements of several years.



Fig. 2: Jaarbeurs advertisement in 1924, 1927, 1941.

Source: KITLV (The Royal Netherlands Institute of Southeast Asian and Caribbean Studies)

Jaarbeurs was located in the *Menado Straat*, across the field of the *Nederlandsch Indische Athletiek Unie* (Dutch East Indie Athletic Union), and surrounded by three other streets, *Bandastraat*, *Bilitonstraat* and *Soendastraat*. The area of Jaarbeurs, comprised the main building, an exhibition hall, and a workshop as seen on the old map in the Fig. 3.

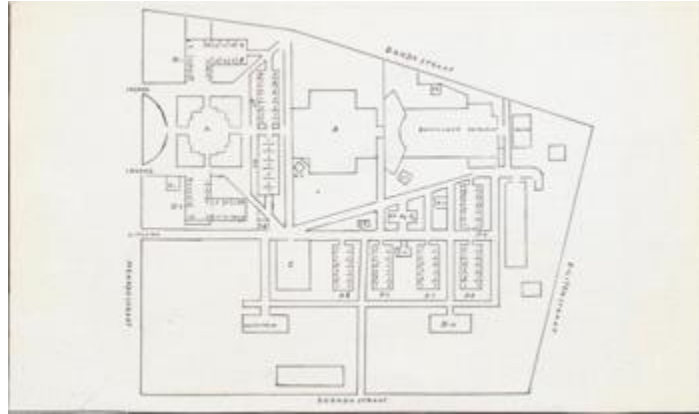


Fig. 3: Jaarbeurs old site plan

Source: KITLV (The Royal Netherlands Institute of Southeast Asian and Caribbean Studies)

The main building (*Hoofdgebouw*) is completely symmetrical, a cruciform plan with lower extensions in the corner of the cross. Inside the main building are council delegation offices on the left-hand side from the main entrance, as well as the meeting room, secretary room, and the technician's room. In the center of the main building is a large room (14x22 m) with two wings on the right and left sides, and each wing is 8x14 m. One of the arms of the of the *Jaarbeurs' cross* has a raised central part to indicate that the main entrance is on this side of the building and the interior floor is finished with thick stones. The entrance is also indicated by a canopy, a sheet of concrete resting on two sets of three pillars. The building's façade and elevation can be seen from the photo archive in Figure 4.



Fig. 4: Three figures of the Jaarbeurs façade

Source: KITLV (The Royal Netherlands Institute of Southeast Asian and Caribbean Studies)

The main building on the right and left, has two ticket booths. This is a box with a vertical element, stained glass and the roof in the shape of a stupa. The building is sparingly decorated with geometric forms, and the architect introduced an ornament inside it as well. In addition to the geometric ornaments on the supporting columns, the building has both Western and Indonesian style figurative ornaments. Various pilasters bear the Javanese Kala head, three more than life-sized male figures have been set in the main façade. Its slightly stopping posture suggests that they are supporting the roof. They represent three identical Atlases, male nudes with their hands on their neck. The figures were designed by Wolff Schoemaker himself.

In *Tropical Modernity, Life and Work of C.P. Wolff Schoemaker*, Dullemen (2010) describes that the *Jaarbeurs* combines several of the influences that Wolff Schoemaker incorporated in his architecture. The main form, comprising different volumes, was clearly influenced by Frank Lloyd Wright. Seligmann (1991) identify Frank Lloyd Wright work's essential characteristic as: the site planning is unsophisticated and lack any distinction between front and back, the elaborate sets of porches are attached to or cut into the mass of the house, essentially all exterior surfaces are covered by the same material in a great variety of pattern but similarity in scale, walls, roofs, floors, and soffit become one, even windows are divided into small panes, producing the effect of similar, though shinier texture to those shingles. The first shows that Indonesia Kala heads visible on the columns inside and the vertical tapering resembles Indian stupas. Frank Lloyd Wright described his organic architecture as 'appropriate to time, place, and men'. The traditional box shape is interrupted by a small tower on the elevation of the façade, often to emphasize the position of the entrance. The horizontal and vertical elements of the façade are arranged in different sections. Wolff Schoemaker's *Jaarbeurs* seems to have been designed with this adage in mind and therefore occupies a special place in the oeuvre.

Research Methods

This qualitative research data collections were collected from observation and analysis on physical and value of case study. *Jaarbeurs* building is selected as case study because this building was built during end of Dutch period. This is the period when Dutch architects led Indonesian traditional architects into the experiment with Western architecture to find a new one (Mutmainah and Kurniawan, 2018). Besides, this building was built by architect who gave big influence in architecture progression in Bandung City. Interviewed was conducted in semi structure in-depth interviews with historian who conducted research of *Jaarbeurs* in Bandung and heritage architect. Related literatures, dissertation, open-source libraries, and archival maps were used as supporting data. The analysis method was used in the research is within the study literature analysis.

This research examines traditional architecture which represents local cultures, context, and systems, and is considered as vernacular architecture in one case study that built during the last period of Dutch colonization. Thus, the "mythical East" will be exposed to the understanding and interpretation of the vernacular through more dynamically to recognize the explicit traditions of traditional building that adapted to the times.

The discussion of vernacular architecture will focus on the cultural, technical and environmental aspects, which are contained within the physical elements, which conveys the message and the abstract, which perceives the message through signs elements, of its meaning through analysis from the references. From these aspects, it will be seen how the local elements are brought into modernity in the Dutch East Indie Architecture, how it influences the Western knowledge, and how it integrated the paradox design.

Findings and the Discussion

When Europeans conquered Asia, they brought their architectural vocabulary and applied it to the new environment. As James (1982) points out, this international prototype is usually ill-adapted to the foreign environments. The construction and maintenance depended on the importance of the high technology of the West.

Jaarbeurs building was built by hybridization of Dutch and Javanese culture. Even though the location is in Bandung, whose culture is Sundanese, what is visible in the building is Javanese influence. Even the architect, Schoemaker understood that Indo-European style would only occur due to the deep relation of both Javanese and European elements, the elements of construction and art forms (Dullemen, 2010). This discussion will address the cultural, environmental, and technical aspect of vernacular architecture that contributed to *Jaarbeurs* as modern Dutch East Indies Building.

Cultural Aspects

Javanese culture influenced many Dutch architects who worked in Indonesia because Batavia as the capital of the Dutch East Indies is located on the island of Java started a lot of government offices construction, and the thought of incorporating local elements into buildings was initiated by Dutch architects who worked in Batavia and several cities on the island of Java. On the other side, local wisdom owned by the Javanese can respond actively to the presence of foreign culture without losing their personality.

Dutch architects who worked in Dutch East Indie increasingly explored local culture. The builders, as indigenous people who mastered building techniques, continued to carry out their functions as they were used to build the traditional houses. The tradition of building is still being carried out as it is done in *gotong royong* (mutual cooperation), laying the first stone as a symbol of the construction started. This symbol is also known as ground breaking. Kartika (2021) notes that this is symbolization of a form of gratitude of the achievements that must be carried out or done in coming days, and also a form of beginning of *gotong royong* (mutual cooperation).

Gotong royong for Indonesians is a mutual agreement because the agreement will be realized together. *Gotong royong* that occurred in the construction of *Jaarbeurs* was the cooperation of Dutch building experts and the Indonesians. The technology and building knowledge that each party possessed, applied in the building process, strengthened both potentials.

Geographer, Yi-Fu Tuan (2006) describes the process of tradition as one of the constraints rather than repetition. Local traditions are reference in the *Jaarbeurs* development with new interpretations and modifications. The shape of the building resembles one of the buildings for traditional community worship at that time, namely the temple, because traditional architecture in Java is much influenced by the concept of the Hindu Temple. The closer to the center, the taller the building, and the most important area is located in the center. In addition to the shape, the building plan also adopts temple plan, which is the center being in the middle of the building.

Weiler and Gutschow (2007) stated in Hindu context, The *Vastu Sastra*, an ancient text on architecture, highlight the importance of establishing the “center” of a building, the *brahmasthan*. A building emanates from this spot, which represents the essence. The center is therefore imbued with theological and psychological significance. From this perspective, a building is only a shell accommodating the powerful center. It constitutes what is authentic in a building. Retain its center is important; the fabric of a building is a secondary issue.

In *Jaarberus* main building plan, center part with double height ceiling is an exhibition space, which is the main purpose of this building facility. By having a center is an important, exhibition room was the important area to introduce products and sell products in order to support the economy.

Another building element that shows cultural aspect is the ornament. When the building's exterior exhibits two aesthetics, one of massing and one of ornament, it speaks at once of two needs. Those needs cut different tracks through time, doubling the building's utility as historical evidence. (Glassie, 2000).

Irwin (1998) described an architecture ornament either though its used or its elimination is one way in which architectural character is expressed in the building. The ornamentation of buildings is another direct expression of people's connection to buildings. Ornamentation can literally tell the story of a place and its inhabitants. Belief or religion is a factor that forms an ornament while ornament can be considered as a symbol to have power, feel safe or always protected.

Inside the building, a traditional decoration is introduced. There are number of pilasters bear of Javanese Batara Kala heads. Batara Kala is the God of Time. Kala in Sanskrit means time. In Hindu philosophy, Kala is a symbol of everything that cannot go against time. There is a time for everything under the sun, and this is described as a giant with a scary face.

Apart from building ornaments, there are some decorations represented by statues of Western and Eastern mythology. At the front façade of the building, there are three identical

Atlases, male nudes with their hands in their neck, as if the three statues are carrying the weight on their shoulder. They can be seen in the Fig. 5. Tearle (2012) notes that Atlas in Greek mythology was responsible for bearing the weight of the heavens on his shoulders as punishment by Zeus for leading the Titans in their battle with the Olympian Gods for control of the heavens. Atlas was also known as a wise man and the founder of astronomy.

Ornament becomes an element of representation in vernacular architecture and emphasizes communication. In the context of vernacular buildings, form is generally determined by concepts derived from the beliefs and values prevailing in the relevant society. Form also in general imitate or a mimesis of the surrounding natural environmental components that we know so far as natural symbols, although often the form undergoes refinement and superlatives. By placing symbolic or sacred objects within the structure, they become a permanent part of the building.

Refer to James Trilling's (2003) view on ornament as decoration in which the visual pleasure of form significantly outweighs the communicative value of content, the architect integrated traditional goddess figure and Western Goddess figure in the building, uniting them in the building structure, displaying the power of each goddess to traditionally, it may communicate a sense of protection. Spiritual element from the West and the East become another expressing on communicate the West and East composition.



Fig. 5: Three Identical Atlases Figure and Kala in Pilaster

Source: Dullemen

Environmental Aspect.

The term “environment” has a wide meaning. The effect of the environment on people can be direct and indirect. Environment provides cues that are used to interpret a social situation and the effect on people follow from the definition of that situation. In this sense, the environment can be seen as a form of non-verbal communication (Rapoport, 2005). Architecture is heavily influenced by the environment in which it is built. The climate and natural landscape are just a few factors that can influence the design of a building. As shelter, folk houses were essential to survival by moderating the extremes of climate, by keeping the terrors of the outside world at bay and by providing the spaces that made life and work possible in an uncertain world (Carver, 1984). Even though the colonialists wanted to clarify their identity and differentiate their positions from the local population, they still made adjustments and adaptations to natural conditions as well as the local environment. The construction implementers also used local workers who were introduced to and equipped with Western carpentry arts.

Indonesian tropical climate has influenced the space, not only the form of internal space but also involves outside space and space between outer space and inner space of the *Jaarbuers*. Tropical architecture as a living space has three kind of spaces: indoor - outdoor and indoor - outdoor combination consisting of a veranda (Kukreja, 1980). This is one of two to address the issues of cross ventilation solar and rain but still provide deep connection to the outside due to

constant temperature of that biological and climatological region. Recognizing space in traditional residential architecture in Indonesia can be understood not only in the form of internal space but also involves outside space and space between outer space and inner space (transitional space).

These spaces can be understood as a unified whole space between inner space, transition, and outer space. This idea illustrates the continuity between space in the form of permeable, flowing spaces, through semi-open terraces. The outer spaces between the masses of the building are not considered to be independent but designed continuous with transitional (semi-open) space and inner space. The idea of the continuity of the space is strongly influenced by the surrounding tropical nature. Tropical nature allows outdoor activities throughout the year. Thus, the site layout and mass management in traditional architecture in Indonesia are prepared by taking into account the interaction of the outer space (in the form of open space), the transitional or intermediate space (under or terrace) and the inner space (building core) as a symbiotic and continuous entity.

The tall windows on all sides of the wall are an attempt to bring the outside of the building into the building. Because this is not a house building, but a commercial building, the existence of a terrace as a transition space is only on one side of the building and not as wide as the terrace in a house building. A terrace in a residential building is often used as a place to socialize, while in a commercial building, the terrace only functions as a transitional space.

Many tall windows also increase air circulation and also increase the incoming sunlight. As much as possible, the cool air outside the room can enter the room, but when the air temperature outside the room is hot, the inside of the room can slightly withstand the hot temperature. A more comfortable interior temperature than exterior can also be achieved from high ceilings. The buildings for the showrooms at *Jaarbeurs* have high ceilings to allow for better indoor air circulation, resulting in cooler temperatures.

The large outdoor space outside the *Jaarbeurs* building is maximized as an exhibition and entertainment area. Recognizing that Indonesians are an outdoor society, all entertainment activities and some exhibition activities took place in the outdoor areas. Many socio-cultural encounters between Europeans and the indigenous people took place in the open areas of the exhibition complex. As for the exhibition, a semi-permanent building made of wooden material was built by adopting the shape of a traditional Indonesian house. The layout of the exterior exhibition and the building for displaying the exhibits is shown in the Fig. 6.

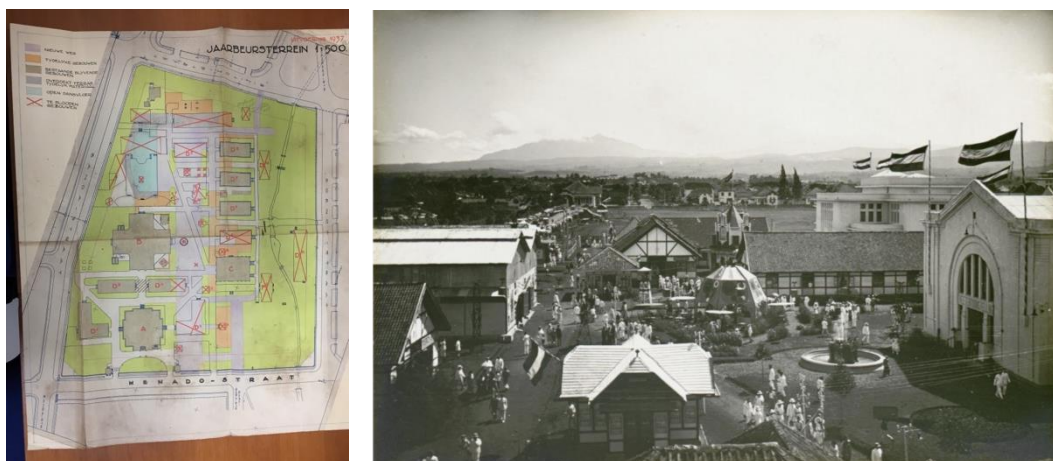


Fig. 6: Exhibition Plan and Exhibition Ambience

Source: Indonesian National Library & KITLV (The Royal Netherlands Institute of Southeast Asian and Caribbean Studies)

Technical Aspect.

Wood is the most common construction material and it can be found in most Indonesian vernacular buildings. It is a locally sourced material that can be found easily and also well-known as a sustainable material. With wooden materials, building construction that adapts to the material, vernacular buildings not only last long but have forms that are adapted to the character of wood.

Construction skills that have been passed on from generation to generation is not to produce a primary consideration, but there are knowledge and value that are adapted, inherited, and transmitted. Craftmanship of the vernacular builder is thought directly on site, while people building the house. Sometimes, there is trial and error on the construction stage, since they do not have written guidelines on how to construct. This tradition refers to the tried-and-tested construction techniques of built forms that have survived the test of time over multiple generations. The experiences and learning that occur in the field are ongoing legacies that continue when building their own houses and when repairing houses or public buildings owned by the community.

In general, from various observation various places in Indonesia, there are *balai desa*. It is a building owned by village where villagers gather when holding meetings and deliberations. In additions to organizing important meetings to discuss matters related to the village. This building is regularly overhauled and rebuilt in the same place, like example Rumah Bujang in Papua. As explained by traditional leader, they demolished the building (although it was still in good condition) and built a new one in the same place. This serves the purpose of not only renewing the building, but also preserving craftsmanship skills for each generation. By building regularly, their skills are honed and improved. However, they did not just do it that way, they also developed their skills and construction system, so that the construction system evolved. They develop their craftsmanship ability, so that the result is developed as well.

Although the *Jaarbeurs* building was built with Dutch construction knowledge, there was a novelty implemented during the exhibition, in terms of local material and construction. Tropical buildings with wooden materials that are commonly found in Indonesia are used as temporary booths for exhibition objects. The construction of the building was made to look like a traditional Indonesian house as seen in the Fig. 7. Building wooden structures with a gable roof is very suitable for the tropical climate in Bandung, with roof wooden structure uses roof tiles materials that are commonly found in Bandung. There are plenty of window glasses that made the sunlight enter the exhibition booth. The building is semi-permanent, meaning that when the exhibition is over, the building will be overhauled and erected again the next year when the next exhibition takes place. By repeatedly going through the process of re-modelling and building, building skills are applied, learnt and taught to others. This is the same way building skills are thought to pass on in vernacular architecture.

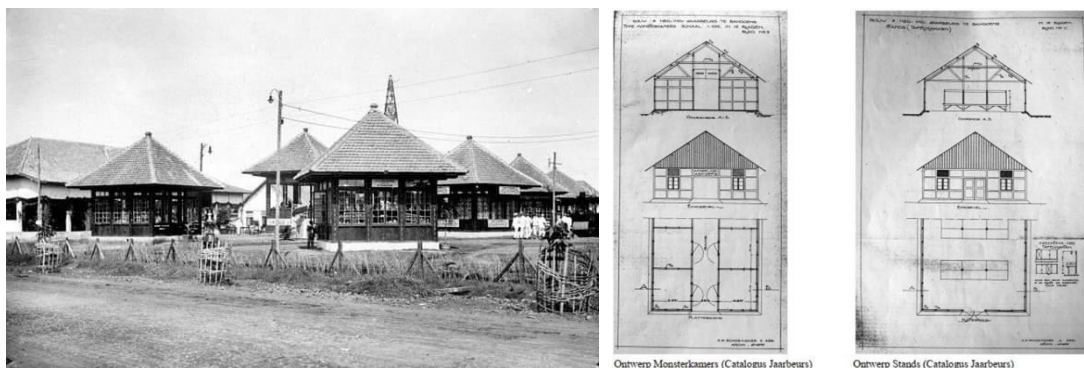


Fig. 7: Temporary Exhibition Booth
Source: KITLV

Conclusion

This study aim is to show vernacular concept that became a thought for Dutch architects in the end of Dutch Colonial era, when the Dutch architect consider indigenous sides and locality on the colonized area, rather than Eurocentric-tending modern architecture. Traditionally was represented variously, from concept, culture, craftsmanship and other architectural aspects. Even though the vernacular originated with dwelling, this idea and process have developed and been adapted to other kinds of building, because in principle the vernacular is the understanding of the human-environment relation. The vernacular contribution on *Jaarbeurs* architecture can be seen in considerations made with regards to:

- **Cultural Aspect:** Javanese culture influenced many Dutch architects who worked in Indonesia because Batavia as the capital of the Dutch East Indies. Since traditional architecture in Java is much influenced by the concept of the Hindu Temple, and The *Vastu Sastra*, an ancient text on architecture, highlight the importance of establishing the “center” of a building, in *Jaarberus* main building plan, center part with double height ceiling is an exhibition space, which is the main purpose of this building facility. Inside the building, a traditional decoration is introduced. There are number of pilasters bear of Javanese Batara Kala heads. Batara Kala is the God of Time. At the front façade of the building, there are three identical Atlases, male nudes with their hands in their neck, as if the three statues are carrying the weight on their shoulder. Ornament becomes an element of representation in vernacular architecture and emphasizes communication. Spiritual element from the West and the East become another expressing on communicate the West and East composition.
- **Environmental aspect:** Indonesian tropical climate has influenced the space, not only the form of internal space but also involves outside space and space between outer space and inner space of the *Jaarbuers*. These spaces can be understood as a unified whole space between inner space, transition, and outer space. Many tall windows also increase air circulation and also increase the incoming sunlight. The buildings for the showrooms at *Jaarbeurs* have high ceilings to allow for better indoor air circulation, resulting in cooler temperatures. The large outdoor space outside the *Jaarbeurs* building is maximized as an exhibition and entertainment area. Recognizing that Indonesians are an outdoor society, all entertainment activities and some exhibition activities took place in the outdoor areas.
- **Technical aspect:** Construction skills that have been passed on from generation to generation is not to produce a primary consideration, but there are knowledge and value that are adapted, inherited, and transmitted. Craftmanship of the vernacular builder is thought directly on site, while people building the house. Tropical buildings with wooden materials that are commonly found in Indonesia are used as temporary booths for exhibition objects. The construction of the building was made to look like a traditional Indonesian house. There are plenty of window glasses that made the sunlight enter the exhibition booth. The building is semi-permanent, meaning that when the exhibition is over, the building will be overhauled and erected again the next year when the next exhibition takes place. By repeatedly going through the process of re-modelling and building, building skills are applied, learnt and taught to others. This is the same way building skills are thought to pass on in vernacular architecture.

Through vernacular lens, there was a consideration from Dutch architect to bring up indigenous architectural values and element, merged with modernity as a way to explore the ultimate identity of East Indies Architecture and created a new manifestation. The dynamic vernacular process is seen to evolve in paradoxical concept including traditional-modern, technology-craftmanship, colonial-indigenous. However, in this case study, the vernacular made little contribution while Western architectural ideas and style are still dominant in the main building, whereas the outdoor area for temporary booth was made look like Indonesian traditional houses. So perhaps, *Jaarbeurs* should be pictured not only the main building but the whole exhibition complex including the wooden temporary booths.

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