

Conservation Principles and Infill Design Analysis of De Mier Eat and Stay Surabaya

by Timoticin Kwanda

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Josefira Jedine Santoso¹, Timoticin Kwanda²
1, 2. Magister Arsitektur, Fakultas Teknik Sipil dan Perencanaan, Universitas Kristen Petra,
Jl. Siwalankerto No.121-131, Siwalankerto, Kota Surabaya
Email: josefirajedine@gmail.com

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Abstract

Darmo is an area in the city of Surabaya which rich in architecture from the Dutch colonial period. Based on the Regional Regulations of the City of Surabaya, not all buildings in the Darmo area are protected. A lot of the original buildings were being interfered with. De Mier Eat and Stay is an example of adaptive reuse in the Darmo area that collaborates preserved Dutch Indies-styled building with a new modern building to accommodate new functions. This paper examines how successful conservation and infill design principles are applied in De Mier Eat and Stay. The research method was conducted qualitatively through site visits and interviews with the designer. The data were then analyzed with a comparative table based on the literature. From this study, it can be concluded that the interventions done in the opening elements fulfill all four conservation principles. In contrast, the wall elements only fulfill three, and the floor elements didn't fulfill at all. The Infill design was done using the contrast approach. Collaborating two eras of architecture through façade, proportion, materials, and the responses to surroundings creates a unique harmony in De Mier Eat and Stay.

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Keywords: conservation, Darmo, Dutch Indies style, infill design.

Abstrak

Judul: Infill Design pada Bangunan Konservasi De Mier Eat And Stay di Surabaya

Darmo merupakan area di Kota Surabaya yang kaya akan arsitektur peninggalan masa penjajahan Belanda. Berdasarkan Peraturan Daerah Kota Surabaya, tidak semua bangunan di area Darmo dilindungi, sehingga banyak bangunan asli yang terintervensi. De Mier Eat and Stay adalah contoh proyek adaptive-reuse di area Darmo yang mengkolaborasi arsitektur pengaruh Belanda dengan bangunan baru yang mengakomodasi fungsi baru. Paper ini menguji bagaimana kesuksesan penerapan prinsip konservasi dan infill design pembuatan De Mier Eat and Stay. Metode penelitian dilakukan secara kualitatif melalui kunjungan dan wawancara pihak perancang. Data kemudian dianalisis menggunakan tabel perbandingan berdasarkan literatur. Dari penelitian ini dapat disimpulkan intervensi yang dilakukan pada elemen bukaan memenuhi keempat prinsip konservasi, sedangkan elemen dinding hanya memenuhi tiga, dan elemen lantai tidak memenuhi sama sekali. Infill design diaplikasikan dengan pendekatan kontras. Mengkolaborasi arsitektur dari dua jaman melalui penataan fasad, proporsi, material, dan respon terhadap sekitar menciptakan harmoni yang unik di De Mier Eat and Stay.

Kata kunci: konservasi, Darmo, arsitektur pengaruh Belanda, infill design.

Introduction

Established as a city in 1293, Surabaya is one of Indonesia's oldest cities, which has undergone many changes. This change especially occurred when the Dutch began to enter Surabaya. In the 1830s, the city center of Surabaya was around *Heerenstraat* (known as Rajawali Street today). But in 1871, the development of Surabaya moved southern ward when the Dutch dismantled the fort walls (Handinoto, 1996).

At that time, the Darmo area was the city's southern edge. This makes Darmo Boulevard one of the main roads to enter Surabaya from the south. Since the colonial era, this road was the main trade and traffic route (vehicles and trams) for the people and the colonial government. Its strategic location has made the Darmo area an upper-class residential area. Most of the residential buildings were influenced by the new Indies style, which is still in the Darmo area today. The major amount of heritage buildings and houses in Darmo makes this area a valuable heritage.

Over time, the houses in the Darmo area have undergone many changes and transitions of function. In the main streets of the Darmo area, many new offices, restaurants, shops, and entertainment venues have been built with major building changes. In many cases, heritage buildings were demolished and rebuilt into contemporary-styled buildings. However, a new building on Jambi Street, De Mier Eat and Stay, is an exception. It is renovated into a co-functioned building containing a restaurant, guesthouse, and rentable area, with an obvious effort to conserve the history of the building and its area. De Mier Eat and Stay strive to maintain

the old building through conservation and infill design to meet the needs of its new function. This research wants to analyze which and how the conservation principles are applied in the design process of De Mier Eat and Stay, as well as analyze the elements of infill design done within the framework of cultural heritage in Surabaya.

De Mier Eat and Stay is a mixed-use building with a restaurant, guesthouses, and a retail area for rent. It is located in Jambi Street No. 35, Darmo, Surabaya, Indonesia. De Mier Eat and Stay began construction at the end of 2018 and started operating in 2020. The building was once used as an official residence of the navy. The name of the residence was *De Mier- "ant"* in Dutch, which is now used for the current building name. According to the original owner of the building, in 1930, this building was given to her family and was used as a personal house until 2018. The original building was categorized as a Group C Conservation Building.

This building is located in the "Trade and Service Area" (Figure 1, red-colored area), which is located opposite the designated area for Defense and Security (Figure 1, white-colored area), namely the Surabaya Marine Corps Base. Apart from these military buildings, this neighborhood has many residential houses torn down and built into modern buildings, making the De Mier Eat and Stay building unique. De Mier Eat and Stay collaborate with the existing Dutch Indies-styled building with a touch of modern style.



Figure 1. Land use in the Jambi Street area.
Source: <https://petaperuntukan-dprkpp.surabaya.go.id/>, 2022

Conservation principles

The classical conservation theory sees that the original material is the most essential and foremost witness to the history of the building (Kwanda, 2013). Over time, this classical view has shifted into a contemporary conservation view, marked by its concerns for humans as the main focus. It considers humans who lived at that time as the ones who give meaning, value, and function, and determine what is called a legacy (Loulanski, 2006). In their paper, Kwanda (2013) stated that in the 1980s, a view emerged stating that not everything from the past could and should be saved. This is also related to the emergence of awareness that a heritage building can have significance after going through development, modification, and use for quite a long period (Kwanda, 2013). The Burra Charter (2013) stated that this cultural significance includes aesthetic, historical, scientific, social, spiritual, functions, associations, and contains real meaning.

Kwanda (2013), defined conservation as a notion of change through the actions and process of looking after a place is preventing decay and retain or

sustain cultural significance or values. The conservation process may include a combination of several degrees of intervention: (a) Prevention of deterioration or maintenance, preferred as the best at representing the Minimum Intervention principle; (b) Preservation of the existing state, (c) Material consolidation; (d) Restoration; (e) Rehabilitation, (f) Reproduction, (g) Reconstruction, and (h) Adaptation (Kwanda, 2013).

According to Surabaya City Regional Regulation Article 1 No. 5 of 2005 about Heritage Building Conservation, to conserve is to prevent and deal with all symptoms or consequences caused by human actions or natural processes, which can cause loss or destruction to the value of the benefits and integrity of the building and/or cultural heritage environment by doing preservation, restoration or demolition.

All forms of intervention and changes made in building conservation should not disrupt or reduce the degree of authenticity of the building. The changes are to maintain the building as a form of respect for its original condition. According to the Merriam-Webster dictionary, authenticity means something original, not a copy, true and accurate, and made to resemble the original/replica (<https://www.merriam-webster.com/dictionary/authentic>).

According to Kwanda (2013), this principle of “authenticity” is then explained in more detail as follows:

1. Preserve existing state: an attempt to appreciate the original building materials, ruins, damaged buildings, and materials that have changed due to weather as part of the beauty and originality of the building. This is done by not replacing or changing but maintaining.

2. Minimum Intervention: to carry out conservation with as little intervention as possible so there are no major changes or total replacements in the conservation process.
3. Recognizable as new: The results of the conservation process must be recognized as something new when compared to the original building or material. This can be done by using new materials or techniques so that you can see the difference.
4. Reversible: All interventions or changes made do not damage the original condition of the building so that it can be returned to its original condition.

Cultural Heritage in Surabaya

According to Surabaya City Regional Regulation Article 1 No. 5 of 2005 about Preservation of Cultural Heritage Buildings and/or Environments, cultural heritage buildings are man-made buildings, in the form of units or groups, or parts thereof or their remains, which are at least 50 (fifty) years old, or represent a unique style period and represent a style period of at least 50 (fifty) years, and considered to have important values for history, science, and culture.

As explained in the introduction, the Darmo area was one of the busiest areas during the colonial period, leaving many heritage buildings and cultural heritage. This makes the Darmo area one of the important historical archives for Surabaya. However, the government does not preserve all Dutch Indies-styled buildings in the Darmo area. This creates freedom for the building owners to carry out any intervention in the heritage building. As a result, many houses in the Darmo area today have been rebuilt into more modern-styled buildings.

Infill design principles

In this era, old buildings have begun to fall out of favor and not respond to current needs. This happened both in terms of form and the effectiveness of the building. On the other hand, these old buildings have their valuable histories, which put demolishing as the last option possible. Infill Design is a technique used to design or develop new areas and/or old buildings, with the aim of revitalizing and increasing the function of areas or buildings in all aspects, economic, social, cultural, and so on.

Soemardiono & Ardianta (2017), summarized several general design criteria into design frameworks that are suitable to be applied to cultural heritage in Surabaya, such as:

- a. Infill design must represent the success in collaboration and compatibility (of height and building materials) between the new facade elements and the old construction of conservation or heritage building so it creates harmony with the existing building, as well as to determine an infill design strategy of the conserved area.
- b. Regulations and information regarding heritage buildings must clearly understand the existing heritage area's previous context and function.
- c. Community participation in the design process must be important in supporting the success of the infill design effort.
- d. Infill design efforts must accommodate the relationship between surrounding areas, such as streetscapes, open spaces, and transportation.
- e. The character of the building must be kept by considering the architecture-,

the quality— and the potential of the building.

According to Alfievic & Alfievic (2015), there are 3 (three) approaches to infill design practice, such as:

1. Mimicry approach (mimesis): a construction method that reflects or imitates visual and other characteristics of the objects in that setting.
2. Associative approach: a construction method by the “spirit of a place” (genius loci) by transferring and stylizing the characteristics from the surrounding and constructing a new object to resemble the neighboring objects to a higher or smaller degree.
3. Contrasting approach: a procedure of wholly or partially denying the characteristics of the surroundings, where a new object, visually diverges from its setting, but at the same time blends into it.

Methods

This research wants to analyze which and how the conservation principles are applied in the design process of De Mier Eat and Stay, as well as analyze the elements of infill design done within the framework of cultural heritage in Surabaya. The data collection process is divided into 2 (two) steps as follows:

1. Qualitative secondary data collection through websites and social media regarding initial data, location, and photos of the original and existing building.
2. Qualitative primary data collection through site visits and interviews with the designer and contractor. The semi-structured interview was held on May 17th, 2022, at De Mier Eat and Stay with the participation of Clifford Sutedjo as Principal of Spasi Architects and Aryanto

Oetomo as Principal of SETUP Planning + Forming and the interviewees. This step's main goal is to learn more about design concepts and building processes related to the conservation principle and infill design applied.

The data that has been collected is then qualitatively analyzed to identify the changes that the building went through. This step is important to identify the original building before being conserved. The original state of the building then being compared to De Mier Eat and Stay building based on the design elements conserved, such as floor, wall, and openings. The interventions done in each element are then analyzed using conservation principles. The conservation principles used in this research are: (a) Preserve, (b) Minimum intervention, (c) Recognizable as a new, and (d) Reversible. The comparative table will show what conservation principles applied or not in making De Mier Eat and Stay.

According to Soemardiono & Agatha (2017), several design criteria are suitable to be applied to cultural heritage in Surabaya, which can be analyzed within these building elements, such as: (a) Façade, (b) Proportion, (c) Material, (d) Color, and (e) Relationship with surrounding areas. These elements will be used to analyze the infill design done in this building to determine if it is still within the framework of cultural heritage in Surabaya.

Results and Discussion

De Mier Eat and Stay underwent 2 (two) stages of change. The first stage is the stage of change or adaptation of the original building through

conservation. At this stage, there is a conversion of the function of the building from a residential to a commercial function. The second stage is adding a new building (infill design) to accommodate the new function (adaptive reuse). In the second stage, the building is added to fulfill functional requirements and create an attractive impression as a commercial building.

Building Conservation Analysis

At the beginning of the identification process, there were 2 (two) different building periods on the same site. This was successfully identified by the building designer because there are differences in the character and arrangement of building construction.



Figure 2. Material Analysis of Existing Buildings

Source: Author's drawings, 2018

- The colors of the shading tools, gutters, and building sills are the same. This indicates that all three were made at the same time. These elements are present throughout the building, so the age difference cannot be identified.
- *Ampyang* stones can be found on the fences and walls of the main building. *Ampyang* stone is one of the characteristics of buildings with Dutch influence. This can be used as an indicator to determine the authenticity of the building.



Figure 3. Material analysis of existing buildings; differences in existing buildings

Source: Author's drawings, 2018

- There is a separation of the roof structure of the building, indicating that these buildings were not built simultaneously.
- The shading tool connection between windows is not well designed, so the shading tool seems only an additional element.
- The number of ventilation holes is not identical in the two buildings compared.
- When compared to the appearance of the building, the main building looks more like a Dutch-influenced designed building because there are several decorative ornaments, such as *ampyang* stones, on the walls of the building.

Based on the identification above, it can be concluded that the original building is the building in the middle, referred to as the main building. This happens because the main building has significance from the strength of the characteristics of the Dutch Indies building. The additional building next to it is made to “resemble” the main building. This further reduces the significance of the additional buildings because they do not fulfill the principle of being “recognized as a new” in conservation. Therefore, considering the land requirements, the designer demolished the additional building. This also occurs in the existing shading

devices or canopies in buildings. It can be seen from the shape, color, and materials used that are the same as those found in additional buildings. Therefore, the designer decided also to remove the canopy to restore the main building to its original state.



Figure 4. Before (left) and after (right) demolition.

Source: Spasi Architects' documentation, 2018

After identifying and demolishing less significant buildings, the next stage is conserving the preserved main buildings. The main building has characteristics and a story that made the designers want to turn it into a building concept. *"It's like visiting grandma's house,"* said Clifford, the principal of Spasi Architects (personal interview, 17th May 2022).

Floor Conservation

The floor in the original building of De Mier Eat and Stay underwent a total change. Existing tiles from the original

building were replaced entirely. *"The existing tiles in the main building were damaged and broken, so it would take a lot of time and money to repair them,"* said Aryanto Oetomo, the principal of SETUP Planning + Forming (personal interview, 17th May 2022). The new tile selected was the same size as the old tile. Even though there have been changes, the "grandmother's house" concept is still maintained in the floor elements by selecting tile patterns with a feel of an old house.



Figure 5. Existing old tile in the main building.

Source: Spasi Architects' documentation, 2018



Figure 6. Main building tile after conservation.

Source: Author's documentation, 2022 and https://www.instagram.com/p/CG_xcCZFPPr/?igshid=YmM0MjE2YWMzOA==, 2020

Table 1. Floor conservation analysis

Conservation principle	Floor conservation practice
Preserve	Did not occur. The floor of the main building was not maintained and was replaced as a whole.
Minimum Intervention	Did not occur. The old tiles were demolished, so the intervention was large.
Recognizable as a new	Did not occur. There is no comparison of the old tiles, so the new tiles cannot be recognized.
Reversible	Did not occur. Dismantling and replacing tiles cannot be returned to their original condition.

Source: Author's analysis, 2023

Based on the conservation principle, the changes in the floor elements did not fit

the criteria. Besides the big makeover that resulted in a maximum intervention

of the floor, not a single tile was left as a historical trail. This makes the floor element lack change indicators, making the conservation untraceable. If only one or two old floor tiles were left behind, the “Recognizable as a new” principle would be fulfilled because of a visible physical comparison.

Wall Conservation

The existing walls of this building wanted to be preserved as much as possible. This can be seen from the main building plan, which has not changed much from its original shape. Space requirements for baristas and restaurant circulation are accommodated by cutting small circulation openings on the bottom part of the wall. However, there are obstacles in the process of building wall conservation. Like other Dutch heritage buildings, a bearing wall is used as the structure. This causes difficulty in

tearing down the lower wall because it acts as a structure for the wall above. Thus, additional beam structures were added to create the required wall openings.



Figure 7. Before (left) and after (right) the same spot

Source: Spasi Architects’ (left), 2018 and author’s documentation (right), 2022

The color of the walls has gone through some changes. The new building is painted white, unlike the original off-white wall. However, the authenticity of the wall color cannot be confirmed because there is no old wall left.

Table 2. Wall conservation analysis

Conservation principles	Wall conservation practice
Preserve	 Main building's wall conservation plan Source: Author's drawing , 2022 Occurred. Trying to maintain all the existing walls, not changing the existing room plans, only cutting a few walls for circulation.

Minimum Intervention	 Several walls were torn down to accommodate new functions Source: Author's drawing & documentation, 2022 Occurred, with several changes. The new spaces are formed by cutting some of the existing walls just enough for circulation. The old building uses a bearing wall structure, so it requires calculating and transferring loads to the new beams to make the main room openings.
Recognizable as a new	Did not occur. It doesn't show the difference in the walls because they are finished with the same white paint.
Reversible	 Using horizontal lines to break the wall height. Source: Author's documentation, 2022 Occurred. Using wood elements to accentuate the existing ceiling. This wooden element also serves as a place for needed lights and cables. This effort is by the "Reversible" principle, where no damage is done for utility purposes.

Source: Author's analysis, 2023

Opening conservation

The openings were tried to be preserved as much as possible. This is done because the existing building openings' placings were sufficient to meet the needs of the new restaurant. The existing windowsills and door shutters are also reused for De Mier Eat and Stay. The windowsills and existing doors were originally painted using off-white oil paint. After peeling it off to test the authenticity of the material, it turned out that the paint had been layered on, so restoring it to its original condition was difficult. Therefore,

scrapping was carried out on the existing windowsills and door leaves to reach the initial wood material. Then the windowsills and door leaves are maintained to give the impression of natural wood finishing.



Figure 8. Color comparison of the door leaf before (left) and after (right) conserved.
Source: Spasi Architects' (left), 2018 and author's documentation (right), 2022



Figure 9. The front window is conserved before (left) and after (right).
Source: Spasi Architects' documentation and author's documentation, 2022

The patterned glass found in the area behind the barista was also conserved. This patterned glass was a craftsman work a long time ago, so the architect wanted it to be preserved. This pattern

combines small glass connected by tin (a silvery-white metal), making it fragile and dangerous. Therefore, the preservation effort was to clamp the patterned glass with transparent glass as additional strength.



Figure 10. Preserved patterned glass
Source: Author's documentation, 2022

To accommodate the new function, several additional doors and windows were required. This addition was made with the "recognizable as a new" principle, using elements whose expression differs from the original. The newly selected openings use modern materials, black aluminum frames, and glass. This is deliberately done so that you can see which parts are newly added results. In other words, this effort can also be referred to as an infill design carried out on the interior of a conservation building.

Table 3. Openings conservation analysis

Conservation principles	Openings conservation
Preserve	 Main building's openings conservation plan Source: Author's drawing, 2022 Occurred. All existing openings were maintained. Maintenance of the original pattern glass on the window (No. 2) is also carried out to maintain its original condition.
Minimum Intervention	Occurred. There is no displacement of the existing openings.
Recognizable as a new	 New opening using modern materials. Source: Author's documentation, 2022 Occurred. Using a contrasting material for the new openings. This can be compared with the originals because the existing windowsills and door openings were maintained.
Reversible	Occurred. With no changes in shape and position, the openings can be returned to their original state. The addition of new openings also does not damage the old openings.

Source: Author's analysis, 2023

Infill Design Analysis

The demolition process, which was done before, was aimed at making space for the new buildings to accommodate new functions. To maximize land use,

the new building is designed with 2 (two) levels. The new building was designed for a guesthouse, so its function differs from the restaurant. This created a "freedom" for the new

building design, which can be viewed through the principles of infill design.

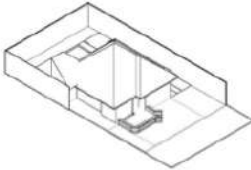
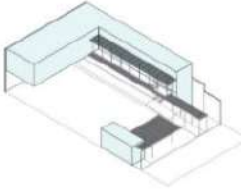


Figure 11. Perspective view of De Mier Eat and Stay

Source:
<https://www.instagram.com/p/COftqXMnkaO/?hls=hid=YmMOMjEZYWMzOA==>, 2022

From the front view, the main building being maintained is flanked by the two new masses. This relates to the designer's intention to show the time difference between the two buildings. "In this way, this building can become a new monument, will be remembered in the future as a building that was erected in 2020, with the trends and styles of the 2020s, just like the original building that we are maintaining," said Clifford, Head of Spasi Architects, the design team of *De Mier Eat and Stay* (personal interview, 17th May 2022).

Table 4. Analysis of infill design for building additions

Conserved Original Building	Infill Design Practice
(a) Facade	
 Source: Spasi Architects' documentation and author's drawings, 2022	
 Source: Spasi Architects' documentation, 2018 — An arrangement of rectangular shapes closed by an isosceles triangle. The shape composition looks like a normal residential building, so it can give a sense of home.	 Source: Spasi Architects' documentation, 2018 — An arrangement of rectangular shapes. The shape is more rigid and bold, in contrast to the shape of the old building. Become something new and different.



Source:
<https://www.instagram.com/p/CKgYBFcplMz/?igshid=YmM0MjE2YWMzOA==>, 2022

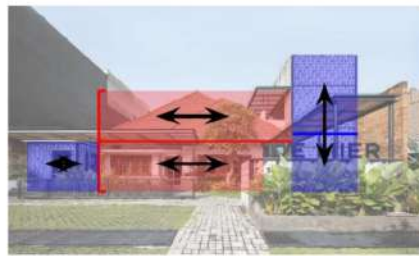
The original building has a Dutch house style adapted to a tropical climate. A high-sloping shield roof characterizes it. This form gives a homey impression, *'like visiting grandma's house.'*



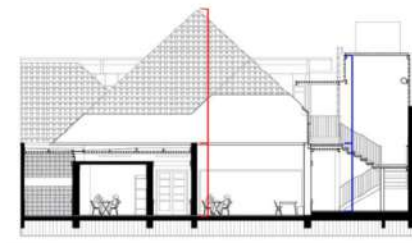
Source:
https://www.instagram.com/p/CMBm6C8AJ_X/?igshid=YmM0MjE2YWMzOA==, 2022

The new building has an industrial style, with an exposed modern structure. The characteristic of this building is in the roster, which is used for building facades. The geometric shape of the building shows a modern style that contrasts with the appearance of the old building. Louvre canopies are placed in almost all buildings, including on the terraces of the old building, as a binder between the new and old buildings.

(b) Proportion



Source: Author's drawing, 2022



Source: Spasi Architects' documentation and author's drawings, 2022

— 1 (one) floor building with a roof proportion approximately equal to the height of the building it shelters. The original building axis is horizontal.

— The new building follows the size of the old building. The new building has a height of 2 (two) floors with a flat rectangular shape. The new building axis is vertical upwards.

(c) Material



Source:

https://www.instagram.com/p/CJhg6KCFc_F/?utm_source=ig_web_copy_link&igshid=MzRlODBiNWFlZA==, 2022
https://www.instagram.com/p/CKgYBFcplMz/?utm_source=ig_web_copy_link&igshid=MzRlODBiNWFlZA==, 2022

Maintaining the existing condition as much as possible:

- The structure mostly uses brick-bearing walls so that the building walls are thick
- Door and window frames are made of wood
- The walls of the house's porch are made of *ampyang* stone
- Covering the roof using red tiles

Source:

https://www.instagram.com/p/CQqcSy6sh_W/?utm_source=ig_web_copy_link&igshid=MzRlODBiNWFlZA==, 2022
https://www.instagram.com/p/CMBm6C8AJ_X/?utm_source=ig_web_copy_link&igshid=MzRlODBiNWFlZA==, 2022

Using modern materials that are trending in the 2020s

- Using exposed steel as the main structure
- Using a modern patterned rooster for building envelope
- Using the combination of wooden louvre, steel structure, and tempered glass as a canopy.

(d) Color

- White color to mainly cover the walls and ceiling
- Brown color from wood, which is used indoors and on windowsills
- Gray color from *ampyang* stone
- Red color from roof tiles

- White rooster, selected to make harmony with the dominant color of the old house
- Black color for the exposed steel structure and new sills, so they can become a differentiator as a new building.
- Brown color from the wood louvre aims to keep presenting colors that can bridge 2 (two) different eras.

(c) Relationship with surrounding areas



Source: Spasi Architects' documentation, 2018

A large yard in front of the main house was one of the hallmarks of a Dutch heritage building. This arrangement creates a hierarchy, where the main house is the center of activity and the main goal on the site.



Source: Author's documentation, 2022

The new building was not brought forward, and the setback functioned as a parking area and partly for road expansion. This is intended so that the new building looks unified and does not dominate the old building. With this arrangement, the two eras are seen side by side.

Source: Author's analysis (2022)

The infill design approach in De Mier Eat and Stay is the contrasting approach. The use of a modern industrial façade contrasts with the existing Dutch Indies-styled building, which creates the identity of different eras of the building. This contrast is also shown in the material used. The preserved materials are relatively old and popular in the colonial era, while the new building used steel and exposed materials that are more popular recently. The colors, however, are inspired by the existing building. This makes the contrasts blend into one and uniquely unite. As a responsibility of making a public area, the site's setbacks are also designed to be a parking area. This creates a clear view of the frontal area where the existing old building stands beside the new ones. In this case, the hierarchy of the building might be enhanced by placing the new building backward as the background of the existing building. This setting can clarify the building hierarchy, so the

focus, which should be set in the conserved original building, can be seen more clearly.

Conclusions

Almost all the conservation processes in De Mier Eat and Stay followed the conservation principles. One of these processes was restoring the original state by demolishing the unoriginal parts of the existing building. The original layout was mostly preserved, slightly changing to accommodate the new function. This decision allows the preservation of most walls and openings, with minimum intervention on spots needing change. This was followed by restoring doors and window sills to their original color and maintaining an antique craftsman window. A few interior elements were also added to create space for utilities, allowing the building to be reversible. However, the interventions of the floor elements cross the conservation

principles. The floor tiles makeover did not fit the minimum intervention principle, nor was it reversible. The authenticity of the tiles was also untraceable because not a single original tile was left behind as an indicator of change.

On the other hand, the infill design effort was done successfully by understanding the context of the project. The building site was in a historical area, which made it important to respect the surroundings of the building. By making the contrasting approach, the new building did not shadow the conserved building. The contrast in the facade, proportion, and materials, creates an interesting unity of Dutch Indies and 2020s architecture. This makes De Mier Eat and Stay a trendy commercial place that carries a glimpse of histories of Surabaya.

References

- Alfirević, Đ., & Alfirević, S. S. (2015). Infill architecture: Design approaches for in-between buildings and 'bond' as integrative element. *Arhitektura i Urbanizam*, 41, 24-39. doi:https://doi.org/10.5937/a-u0-8293
- Handinoto. (1996). *Perkembangan kota dan arsitektur kolonial Belanda di Surabaya (1870-1940)*. Surabaya: Lembaga Penelitian dan Pengabdian Kepada Masyarakat Universitas Kristen Petra Surabaya.
- ICOMOS-Australia. (2013). *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*. Burnwood: Australia ICOMOS International Council on Monuments and Sites.
- Retrieved from <https://openarchive.icomos.org/id/eprint/2145/1/ICOMOS-Australia-The-Burra-Charter-2013.pdf>
- Kwanda, T. (2013). Rethinking conservation: The notion of manage change in conservation theory and practice in Singapore. *2nd International Conference on Urban Heritage and Sustainable Infrastructure Development (UHSID)* (pp. 112-117). jaftpress.
- Loulanski, T. (2006). Revising the concept for cultural heritage: The argument for a functional approach. *International Journal of Cultural Property*. 13, pp. 207-233. Cambridge University Press.
- Pemerintah Kota Surabaya. (2005). *Peraturan Daerah Kota Surabaya Nomor 5 Tahun 2005 Tentang Pelestarian Bangunan dan/atau Lingkungan Cagar Budaya*. Pemerintah Kota Surabaya.
- Soemardiono, B., & Ardianta, D. A. (2017). The role of infill building in the sustainable conservation; Casestudy: Surabaya downtown. *8th International Conference on Architecture Research and Design*, 305-314.

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