

EXPLORATION OF ART DECO ARCHITECTURAL CHARACTERISTICS AND THEIR IMPLICATIONS IN THE REVITALIZATION OF MEDAN CITY'S HERITAGE

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Abstract (English)

As a city with a rich colonial legacy, Medan contains numerous buildings that exhibit Art Deco influences, particularly in historical areas such as Kesawan and Perdana Street. Using a qualitative descriptive method, including precedent analysis and field observation, the research identifies key Art Deco features such as geometric ornamentation, symmetrical façades, streamlined forms, and the use of reinforced concrete—elements that have been adapted to the tropical climate through design strategies like ventilated roofs, wide balconies, and recessed façades. The AVROS Building and Medan Post Office serve as primary examples of how Art Deco was localized to suit the region's environmental and cultural context. The study finds that preserving these architectural elements is essential not only for maintaining the visual and historical identity of the city but also for enhancing its tourism potential. Revitalization efforts must prioritize adaptive reuse while retaining stylistic authenticity, which can support cultural heritage tourism, strengthen urban identity, and promote economic development. Ultimately, successful revitalization requires collaboration among government bodies, heritage experts, local communities, and private stakeholders, supported by national heritage policies. Art Deco architecture thus holds significant potential as a tool for sustainable urban regeneration and cultural continuity in Medan.

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Art Deco Architecture, Architectural Heritage, Cultural Tourism, Heritage, Revitalization.

1. Introduction

Art Deco is a style that emerged in the 20th century and influenced various aspects of the art world, one of which is architecture. The style was first introduced at an exhibition in Paris, France [1]. As an architectural style that can combine the aesthetic and cultural values of a region, Art Deco architecture developed rapidly to countries in the United States, Latin America, and Asia. The use of this architectural style is found in many commercial buildings such as: cinemas, hotels, and supermarkets, government offices, and stations [2]. The development of Art Deco Architecture in the Dutch East Indies in the 20th century has characteristics that can be identified in the application of the building, such as: ornamentation with the use of geometric lines, symmetrical visual patterns of buildings on one side of the building facade or on corner buildings that are often found in big cities in Indonesia, one of which is Medan City [3].

Medan is a city in the northern part of Sumatra Island of Indonesia which is the main transit city to various regions in North Sumatra province. With its strategic location, the city developed into a trade center from the Dutch colonial period, especially in an area known as the Kesawan area. Medan has developed into a metropolitan city with a population of around 2.5 million people dominated by Batak and Malay tribes followed by Javanese, Acehnese, Chinese, and Indians. As a city rich in culture, the city has great potential to be developed especially in the aspect of tourism [4].

Tourism is one of the sectors that contributes highly to the economic sector of a country, supported by the records of the Ministry of Tourism and Creative Economy (*Kemenparekraf*), the country's foreign exchange increased by 769.39%, namely US \$ 0.49 billion in 2020 and US \$ 4.26 billion in 2021 [5]. Referring to data from the *Badan Pusat Statistik* (BPS) of Medan City in 2025, there is a rapid increase in the number of foreign tourists visiting Medan City which can be seen in table 1. Where the total number of tourists is growing rapidly, namely: 11,732 (in 2021), 56,368 (in 2022), 162,438 (in 2023), and 192,712 (in 2024). With the total number of visitors for 4 years (2021-2024) amounting to 538,171, the number of visitors visiting the Kesawan area through the Tjong A Fie House is 28,034, which is around 5.2% [6].

Table 1 Table of the number of foreign tourists in Medan City.

Year	Number of Tourists
2021	11.732
2022	56.368
2023	162.438
2024	192.712

The Kesawan area is an area that holds many legacy of the Dutch colonial era, some of which are famous: Tjong A Fie Mansion which is the house of an influential Chinese businessman in Medan City which until now the house has been functioned as a museum and has been designated as one of the cultural heritage buildings. Furthermore, the Warenhuis building was a supermarket that stopped operating along with the loss of Dutch power in Indonesia [7]. Its function as a trading area during the Dutch rule, made this area keep many building legacies that stood for hundreds of years, thus in 2011 this area was officially appointed by the Medan City government as a cultural heritage area [8].

2. Literature Review

2.1 Art Deco Architecture

2.1.1 History of Art Deco Architecture

Art Deco is a style that was first introduced at the *Exposition Internationael des Arts Décoratifs et Industriels Modernes* in 1925 in Paris, France. The emergence of Art Deco was very significant in every aspect of the art world, one of which was architecture. Art Deco architecture drew inspiration from various styles such as geometric Cubism, bright colors from Fauvism, and exotic elements from Egyptian, Asian and Aztec art. In addition, this style was also influenced by Beaus-Arts which can be seen from the elements of symmetry, straight lines, and tripartite division (base, shaft, and capital) on the facade of the building [9]. Although this style was first recognized in France, its influence has grown rapidly so that it is very popular in the United States, Latin America, and Asia. Some of them are found in government office buildings, commercial buildings such as: hotels, theaters, and shopping centers, as well as in Figure 1 station buildings. Art Deco architecture is famous for its ability to combine luxury, technology innovation, and practicality, which makes its remains still considered as important architectural icons up until today [10].



Figure 1 (a) Chrysler Building, New York; (b) Palais de Chaillot, Paris; (c) Eastern Columbia Building, Los Angeles.

2.2.2 Characteristic and the Elements of Art Deco Architecture

Art Deco architecture was considered a symbol of wealth and advancement to show the spirit of optimism, innovation and social reform of its time. This architectural style has characteristics such as the use of rare materials, strong graphic shapes, and the use of contrasting colors. As a form of grandeur, this architectural style adopts materials such as chrome, stainless steel, and reinforced concrete. The use of factory-produced materials makes this building produce simplicity that focuses on straight lines, sharp angles, and geometric patterns such as: zigzag, chevron, and sunburst which reflect the technological advances of the time [9]. In addition, this style is also famous for the application of decoration through shapes, colors, and textures such as: windows and ornaments that contrast with the shape of the building which can be seen in Figure 2 [11]. Often the Art Deco style combines and adapts elements of the history and climate of a region which makes it easier to adapt in different environments. At the end of its glorious era, the Art Deco style of architecture gave rise to an innovation that prioritized functional efficiency and aesthetics under the name Streamline Moderne. Streamline Moderne buildings are known for ornamentation that resembles ships and machines by showing an aerodynamic impression that is identical to the curved mass shape at the ends shown in Figure 3 [1].



Figure 2 (a) Pantages Theatre, Hollywood Exterior; (b) Pantages Theatre, Hollywood Interior

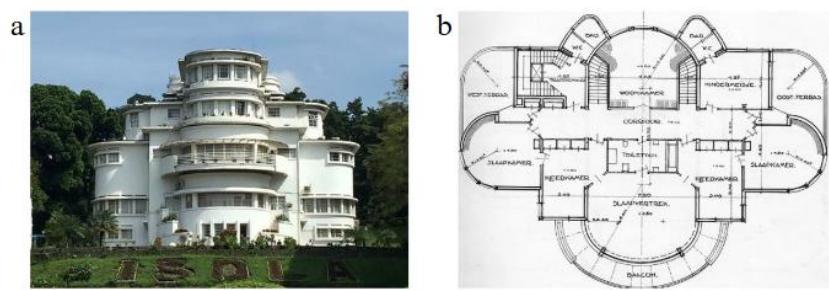


Figure 3 (a) Villa Isola Exterior; (b) Villa Isola Floor Plan

2.2.3 The Influence of Art Deco Architecture in Medan, Indonesia

The development of Art Deco architecture in Indonesia was influenced by Dutch colonial authority that colonized Indonesia in the 20th century. Art Deco that developed in Indonesia had more simple forms such as: cylindrical and curved shapes that predominantly used reinforced concrete with dominant white colors that were assimilated with the tropical climate in Indonesia in Figure 4. Based on the period of its development in Indonesia, Art Deco Architecture that developed in Indonesia is divided into four periods, namely: Traditional, Indisch, and Tropical Architecture Period (1879-1909), Art Deco Amsterdam School Period (1910-1920), Art Deco Decorative Art Period (1920-1930), and Late Art Deco or Streamline Period (1930-1950) [1].



Figure 3 (a) Surabaya Post Office ; (b) Gedung Sate Bandung

2.2.4 Policies and Regulations Regarding Heritage Areas

In Indonesia, there are several policies regarding the preservation of cultural heritage areas which include protection, development, and utilization of cultural heritage areas regulated in *UU No. 11 tahun 2010 tentang Cagar Budaya*. Preservation and conservation of cultural heritage is an effort to protect, maintain, and prevent cultural heritage from damage caused by natural factors [12]. This is sought so that cultural heritage can be preserved and can be delegated to the next generation. In supporting the implementation of *UU No 11 tahun 2010*, *Peraturan Pemerintah No 1 tahun 2022 tentang Register Nasional Dan Pelestarian Cagar Budaya* was issued to strive for the preservation and management of cultural heritage properly and correctly. *Peraturan Pemerintah No 1 tahun 2022* covers aspects of registration, protection, and incentives for cultural heritage managers, as well as regulating the discovery and search for *Objek Dugaan Cagar Budaya* (ODCB) / Objects of Suspected Cultural Heritage [13].

3. Method

This research uses a descriptive qualitative approach method that aims to find the characteristics of Art Deco Architecture and its implication on cultural heritage buildings in Medan, Indonesia. Primary data collection in this research consists of building observation and

precedent study analysis. Observations were conducted to find out the characteristics of architecture that developed in the Kesawan Area, Medan, Indonesia in an effort to revitalize the cultural heritage area of Medan City. In addition, precedent studies are used in the form of buildings that show the characteristics of Art Deco that developed in Indonesia. The results of this research will be used to implement the Art Deco Architecture design in revitalizing the heritage area in Medan City.

3.1 Precedent Study

a. AVROS (*Algemeene Vereeniging van Rubber Planters ter Oostkust van Sumatera*) Building

The AVROS Building as shown in Figure 5 is a four-storey building that uses the Art Deco style that is adapted to the climate in Medan City. The building was designed in 1916 by an architect named George Herbert Mulder and constructed in 1918 which functioned as the office of the association of rubber plantation companies in East Sumatra and the office of the American foreign consulate [14].



Figure 5 AVROS Building, Medan

Some elements of Art Deco architecture in this building are reflected in the arrangement of doors and windows that contrast with the shape of the building and are arranged in a horizontal line that gives the impression of aerodynamics, simple ornamentation on the building with a more modest sunburst-like shape, and the use of trellises and stained glass with contrasting colors on the windows Figure 6. The use of curved shapes on the tower of the building and the balcony of the building that shows the characteristics of Art Deco Streamline Moderne architecture Figure 7 [3,14].



Figure 6 The usage of stained glass



Figure 7 Arch on the tower of building

In addition, the design of this building is also adapted to the climate conditions in Indonesia. With the design of air circulation on the roof, the use of a gable roof which is characteristic of tropical architecture considering that Indonesia is a tropical country Figure 8. Balconies with a width of 2 meters around the building to protect the rooms inside from sunlight to minimize the excessive temperature increase in the room in the building, considering that Indonesia is a country with high solar intensity Figure 9.

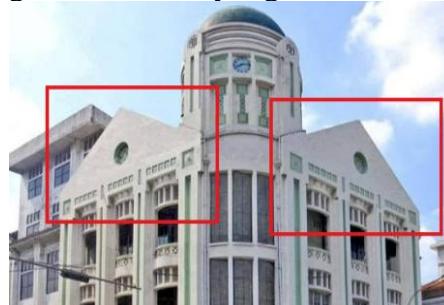


Figure 8 The use of slope roof



Figure 9 Main building wall that set back 2 meters as corridor

The use of materials in the form of reinforced concrete and steel, the combination of the use of contrasting building colors (the use of green in contrast to the main color of the building which is dominant in bone white) is a characteristic of Art Deco Architecture.

b. Medan Post Office

Medan Post Office (Figure 10) is a building that was discovered in 1911 by J. Snuyf who was the head of BOW (*Burgelijke Openbare Werken*). The building is influenced by Art Deco architecture with an L-shaped building across City Hall and Bukit Barisan Street. The building combines horizontal and vertical lines, as well as geometric shapes in the whole building with minimal ornamentation [15].



Figure 10 Medan Post Office

The use of color contrast, namely orange, and the use of stained glass and trellises that contrast with the dominant white color of the building Figure 11. With simple ornamentation, this building still exudes the characteristics of Art Deco architecture through the use of geometric lines applied to the building plan form.



Figure 11 The usage of stained glass

The Art Deco adaptation of this building to the Indonesian climate is realized in the form of sloping roofs, the use of small roof protudes (*lucarn*) Figure 12, and natural ventilation and lighting created through the design of vents and raised roofs [16].



Figure 12 The usage of slanted roof and usage of *lucarn*

3.2 Observation

The object observed in this research is a building on Perdana Street / Siswomiharjo Street Medan, Indonesia which is a row of shop buildings that was built during the Dutch colonial period in the 20th century. Observation of existing buildings was conducted to identify the characteristics of Art Deco Architecture that developed in Medan's historical area, especially in the Jalan Perdana corridor. The data collection method used in this observation was the preparation of panoramic view photos of existing buildings as shown in Figure 13.

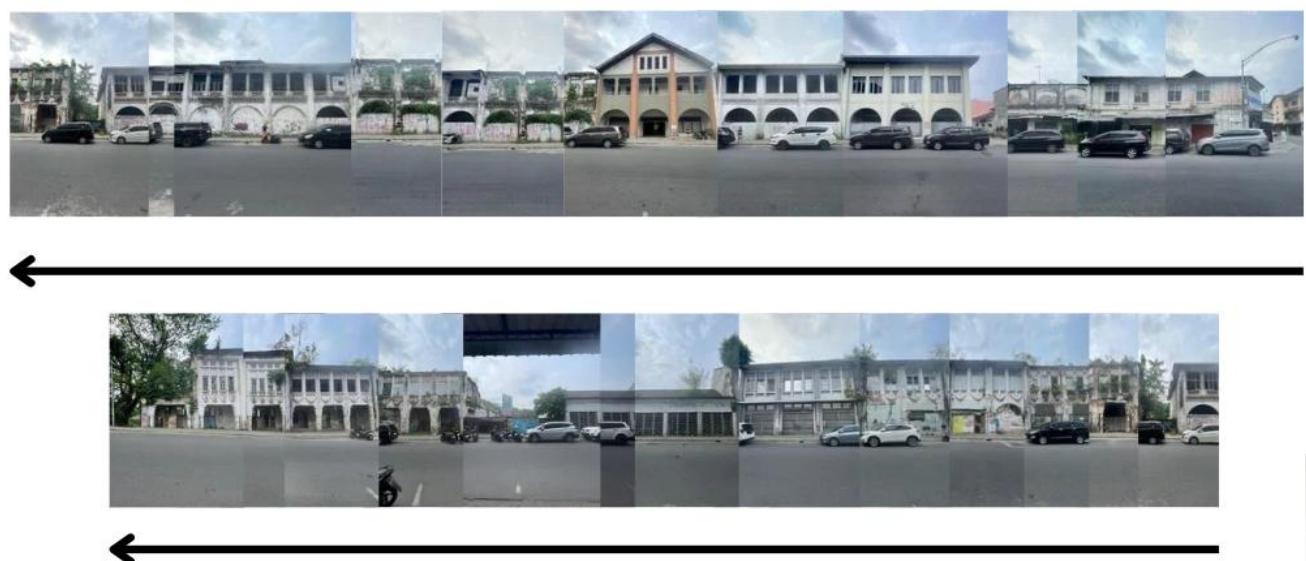


Figure 13 Existing row of shops at Perdana Street

4. Result and Discussion

On the building facade, there is a combination of ornamentation arranged geometrically, with the use of triangles, rectangles, and lines arranged to form horizontal lines and resemble a simple sunburst shape which can be seen in Figure 14. The buildings in this corridor do not apply contrast through color (because the dominant building is white without any color mixing), but through the contrast of shapes that can be seen from the use of arcs on the first floor of the building which contrasts with the shape of the building which can be seen in Figure 15.

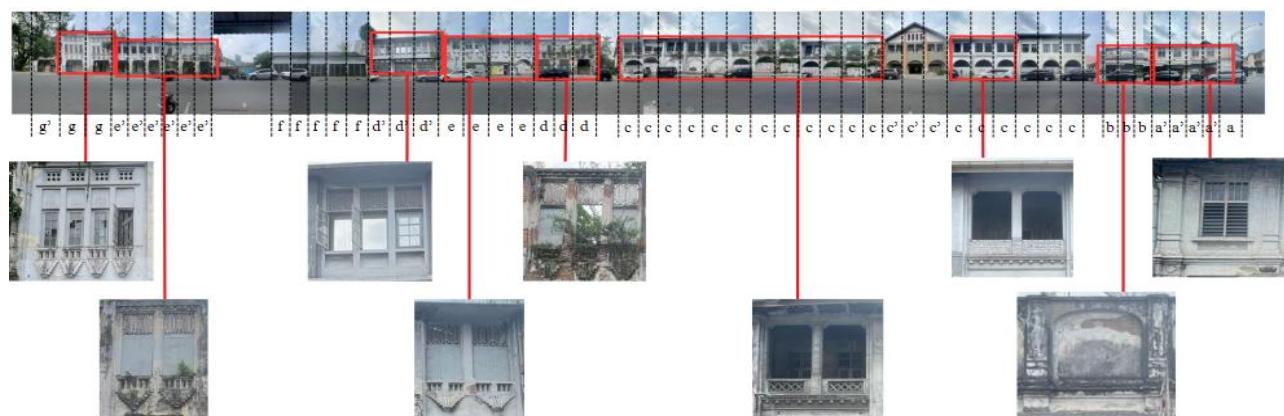


Figure 14 Ornamentation of building façade

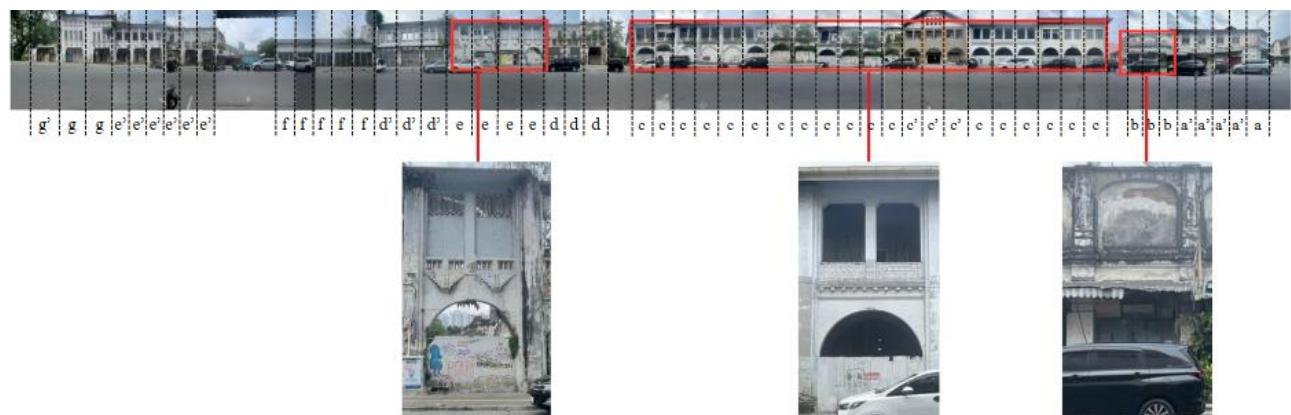
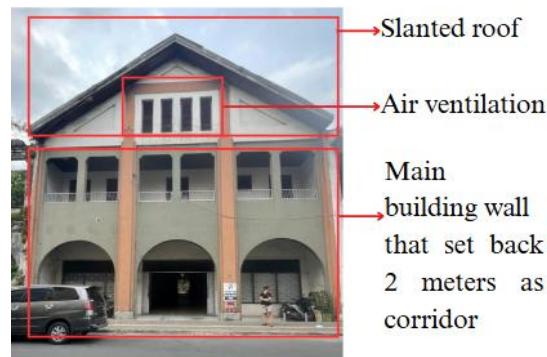


Figure 15 Arc shape that contrast with the buildings' ornamentation

The assimilation of this shop building with the climate in Indonesia can be seen from the roof of the building which is designed using a slope roof, balconies and building entrances 2 meters deep that form a corridor along the building as in Figure 16 which serves to protect the room in the building from direct sunlight exposure.

**Figure 16** Tropical elements in building design

5. Conclusion.

Art Deco architecture in Medan presents distinctive characteristics shaped by both global design principles and local adaptations to the tropical climate. The application of geometric ornamentation, symmetrical façades, streamline forms, and modern materials such as reinforced concrete reflects a unique architectural identity from the colonial era. Through precedent studies of several heritage buildings in Medan city that uses Art Deco Architecture, including the AVROS building and Medan Post Office. Both buildings have art deco characteristics designed with simpler forms and adapted to the tropical climate in the city of Medan. This can be seen in the ornamentation of the building with geometric shapes arranged horizontally, the presence of elements of form and coloration that show contrast, the use of sloping roofs, the design of the main walls of the building that are not directly exposed to sunlight, and the design of air ventilation on the walls of the building. Based on those characteristics and observation on shop houses along Perdana Street, it can be concluded that the buildings along Jalan Perdana use Art Deco style that has integrated functional tropical design features such as ventilated roofs, wide balconies, and overhangs.

The revitalization of Medan's heritage areas, particularly in Perdana Street must prioritize the preservation of these Art Deco elements while enabling adaptive reuse strategies that align with contemporary needs. Maintaining the stylistic integrity of these buildings not only strengthens cultural identity but also supports economic development through cultural tourism and urban branding. Furthermore, successful revitalization requires a collaborative framework involving local government, communities, heritage experts, and private stakeholders, grounded in national heritage preservation laws. In sum, Art Deco architecture can act as a strategic driver in revitalizing urban heritage, enhancing both historical continuity and the socio-economic vibrancy of Medan.

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