

Site Selection Criteria for The Design of the Madiun Arts Facility in Madiun Regency

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ABSTRACT

Madiun Regency, located in East Java, has strong cultural potential supported by various traditional arts activities. Events such as performances, exhibitions, and pencak silat championships are frequently organized by the local government, especially during cultural festivals commemorating the regency's anniversary. However, the region still lacks adequate facilities to properly support and accommodate these activities. This study aims to determine suitable site selection criteria for developing an arts facility in Madiun Regency. The research applies a quantitative method using the Multi Criteria Decision Making (MCDM) approach. Key criteria considered include accessibility, proximity to the city center, surrounding activity intensity, compliance with spatial planning regulations, and environmental conditions. Several alternative sites were analyzed and compared based on these criteria. The results indicate that the first alternative site achieved the highest score, making it the most appropriate and strategic location for the proposed arts facility development in Madiun Regency.

Keywords: Arts, Madiun, Site Selection

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INTRODUCTION

Lately, the whole According to data from the Madiun Cultural Office and various media publications, there are numerous art forms in Madiun. One of the most famous is pencak silat. Pencak silat is the martial art and sport most widely practiced by the people of Madiun, which is why Madiun is often nicknamed "Madiun, City of Warriors." This supports the advancement of the arts in Madiun Regency. Additionally, high schools already have a curriculum that teaches about arts and culture, with programs focused on creating distinctive Madiun attire.

The primary issue here is the lack of a strategic site for the construction of arts facilities in Madiun Regency. Site selection is crucial as it impacts the building's functionality, user accessibility, connectivity to public spaces, and its environmental and socio-cultural impacts on the community. This necessitates a rational and structured approach to determine the site selection, ensuring the design aligns with the needs, regional characteristics, and potential of the area in Madiun Regency.

This study aims to analyze and formulate appropriate site selection criteria for the design of arts facilities in Madiun Regency. These criteria are based on the theory according to (Khairunisa & Rully, 2025)

METHOD

This study employs a quantitative method using the Multi-Criteria Decision Making (MCDM) approach. The site selection approach using the Multi-Criteria Decision Making (MCDM) method is considered effective for determining the most suitable location based on various predetermined criteria.

Table 1: . Site Assessment Analysis

NO	Classification	Weight	Skor	Total	Explanation
1	Down town	30%	5	1,5	The area is located near the town square, which serves as the town center
2	Ease of Access	25%	5	1,25	Easy access, plenty of route options
3	High Activity	25%	5	1,25	The area has high potential for activity
	Urban Planning	25%	3	0,3	Permitted for artistic activities
5.	Environmental Conditions	10%	5	0,5	The location meets visitors' needs
	Total	100%			

FINDING AND DISCUSSION

RESEARCH RESULT

The following is an explanation of several definitions of art according to experts:

- a. According to Ki Hajar Dewantara (1989), art is any human activity that arises from emotion and possesses an aesthetic quality, thereby creating a sense of beauty for those who see or hear it.
- b. According to Jokob Sumardjo (2000), art is a form of symbolic communication in which the symbols created by artists contain messages, values, and cultural meanings that can be interpreted by society.
- c. According to Soedarsono (1999), art is the product of human creativity that incorporates ethical, technical, and cultural elements, and serves as a means of expression and a reflection of a community's identity.

From the definitions above, it can be concluded that art is not merely a medium of expression for artists but also serves as a symbolic means of communication that conveys messages and values to society. Furthermore, art functions as a platform for education and

a vehicle for social and cultural identity, reflecting the character, traditions, and worldview of a community. As such, art holds significant value as a vehicle for expression, a medium of communication, and a representation of culture in society.

The following are theories in site planning:

- a. According to Kevin Lynch (Amir Salipu & Ilah Nashruddin, 2019) site planning is the process of arranging elements on a site based on patterns of orientation, accessibility, image, and legibility
- b. According to (Architect, 2006), site planning is a blend of art and science aimed at managing land use, open spaces, and environmental elements to achieve functionality, beauty, and sustainability. In this process, it is essential to consider the physical conditions of the site, such as climate, topography, vegetation, drainage, and user needs
- c. According to Edward T.White (1985), site planning is the process of organizing open spaces in accordance with site conditions and user needs. This process includes site evaluation, concept development, circulation planning, and landscape design that complements the buildings. In addition, site selection must also meet several requirements,

SITE SELECTION ANALYSIS

Site Selection Alternative 1



Figure 1. Location Map of Alternative Site 1

Source: Google Earth, 2024 (processed by the author, 2026)

- Site Location : Jl. Alun-alun Utara, Caruban, Krajan, Wonoatri District, Madiun Regency, East Java
- Land Area : 14,000 m²
- Existing Land Use : Vacant Land
- Zone : Office
- Activities : Art Performances (Permitted)

Table 2: Site Evaluation Analysis 1

NO	Classification	Weight	Skor	Total	Explanation
1	Down town	30%	5	1,5	The area is located near the town square, which serves as the city center
2	Ease of Access	25%	5	1,25	It offers easy access and many alternative routes
3	High Activity	25%	5	1,25	The area has high potential for activity
4.	Urban Planning	25%	3	0,3	Permitted for artistic activities
5.	Environmental Conditions	10%	5	0,5	The location meets visitors' needs
Total		100%			

Source: personal analysis,2026



Figure 1. Location Map of Alternative Site 2

Source: Google Earth, 2024 (processed by the author, 2026)

- Site Location : Jl. Alun-alun Utara, Caruban, Krajan, Wonoatri District, Madiun Regency, East Java
- Land Area : 14,000 m²
- Existing Land Use : Vacant Land
- Zone : Office
- Activities : Art Performances (Permitted)

Table 3: Site Evaluation Analysis 2

NO	Classification	Weight	Skor	Total	Explanation
1	Down town	30%	5	0,9	The area is located in a residential neighborhood
2	Ease of Access	25%	5	0,5	Being located within a residential area makes access a bit more difficult
3	High Activity	25%	5	1	The area has high activity potential
4.	Urban Planning	25%	3	0,75	Permitted for artistic activities
5.	Environmental Conditions	10%	5	0,2	The location meets visitors' needs
Total		100%			

Based on the two sites that were selected and analyzed, the assessment results can be summarized as follows:

Table 4: Comparison of Research Results on Alternative Site Options

No.	Klasifikasi	Weight	Alternative Site	
			Alternative Site 1	Alternative Site 2
1.	Down town	30%	1,5	0,9
2.	Ease of Access	25%	1,25	0,5
3.	High Activity	25%	1,25	1
4.	Urban Planning	25%	0,3	0,75
5.	Environmental Conditions	10%	0,5	0,2
Total		100%	3,55	3,35

Based on the above evaluation analysis, the selected site is Site 1. The chosen location has an area of 15,350.26 m² and is located in Krajan, Madiun Regency, East Java. This location was selected because it meets the established evaluation criteria, including accessibility, physical conditions of the site, availability of utilities, compliance with spatial planning, and regional development potential. Based on the results of a comparative analysis of the alternative locations, this site received the highest score and is therefore deemed the most suitable for use as the site for the construction of an arts facility.

DISCUSSION

Analysis of the Selected Site



Figure 3. Map of the Location of Alternative Site 1
Source: Google Earth, 2024 (adapted by the author, 2025)

Zone	: Office
Subzone	: R-2
• KDB	: 80%
• KLB	: 5.6
• KDH	: 10%
• Maximum Building Height	: 21 meters

Table 5 : Land Use Calculations

Land Regulations					
Intensity					
Keterangan	Min/Max	Land Area	Koef	Results	Unit
KDB	Max	14.000	80%	11.200	m ²
KLB	Max	14.000	5,6	78.400	m ²
KDH	Max	14.000	10%	1.400	m ²
Building Height	Max	14.000	21		m

Site Boundary Analysis



Figure 4. Site Boundary
Source: Personal Analysis

- North Boundary : Adjacent to the Early Childhood Education (PAUD) center
Response : Provides a boundary for privacy and reduces noise from activities along the northern boundary.
- South Boundary : South boundary of the Madiun Regency Square
Response : Construct a new building, providing a facade for the southern area
- Western Boundary : Adjacent to the Madiun Regent’s office complex
Response : Reduce noise levels in the western area, provide a privacy barrier
- Eastern Boundary : Caruban General Hospital area
Response : Provide a privacy barrier

Accessibility Analysis

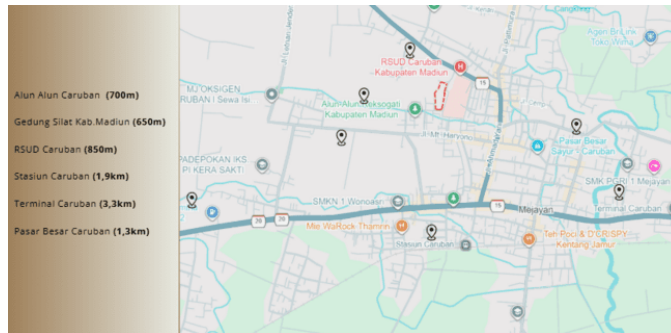


Figure 5. Accessibility
Source: Personal Analysis,2026

Access to this site is quite convenient; it can be reached by private transportation such as cars or motorcycles, as well as public transportation such as buses or trains. The terminal is 3.3 km away, and Caruban Station is 1.9 km away.

Analysis View

- View from the Inside Out :



Figure 6. Inside-Out Analysis
Source: Personal Analysis,2026

- a. North View : Facing the rear of the Early Childhood Education (PAUD) building
Response : Provides a privacy barrier

- b. South View : A road providing direct access to the site
Response : Maximizes the entrance and facade on the south side
- c. West View : Madiun Regency Regent's Office
Response : Reduces the view toward the west, providing privacy
- d. East View : Alun-Alun Utara Street and Madiun Regency Alun-Alun
Response : Maximizes the facade toward the east, providing many openings on the eastern side

- Analysis from the Outside In



Figure 7. Analysis View from the Outside In

Source: Personal Analysis,2026

From the analysis above, it can be seen that the best views are from the south and east. From the east, there is a main road that leads directly into the site, and from the south, there is a small road that also leads into the site. The views from the west and north are less appealing. From the west, there is a government building that blocks the view of the site, and from the north, there is a playgroup building that obstructs the view of the site.

Response: Maximize the facades facing south and east to attract the public's attention.

Sun Analysis

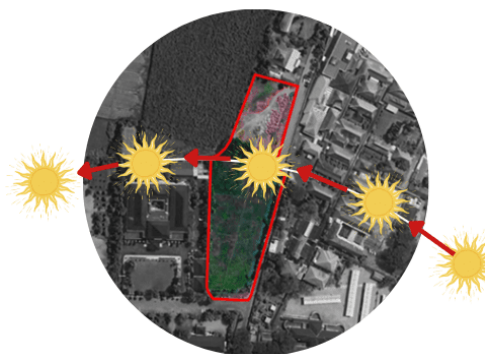


Figure 8. Analysis of the Sun

Source: Personal Analysis,2026

Based on sunrise and sunset data from WeatherSpark, there are important implications for the design of the arts facility in Madiun. The relatively stable daylight hours (approximately 5:00 AM–6:00 PM) indicate that the building will receive a significant amount of sunlight each day. Therefore, the building's orientation should minimize direct exposure from the east and west, as morning and afternoon sunlight tends to be hotter and more blinding. East–west facades can be equipped with shading elements such as louvers, a secondary skin, or shade-providing vegetation.

Additionally, the main openings are best oriented north–south to achieve more even natural lighting that is not overly glaring. With the extended duration of natural light, spaces such as galleries, lobbies, and public areas can utilize daylighting to reduce the use of artificial lighting during the day. For thermal comfort, cross-ventilation and the use of heat-reducing materials must also be considered. With this approach, the building is not only climate-responsive but also more energy-efficient and comfortable for occupants.

Noise Analysis



Figure 10. Noise Analysis
Source: Personal Analysis,2026

From the image above, it can be seen that there are areas with high noise levels. Specifically, the areas with high noise levels are on the north and south sides. According to the site plan, on the north side there is a playgroup building, so there are many children creating noise, and on the south side there is a main road and a town square, which also contribute to the noise in the area.

Response: Plant vegetation in the high-noise areas; rooms requiring low noise levels should be placed in the eastern and western areas.

CONCLUSION

Based on the analysis conducted, it can be concluded that site selection is crucial for the design process. The site must meet specific criteria. In the design of the Madiun arts facility in Madiun Regency, several site criteria are necessary: the site must be located in the city center, have easy access, feature high levels of activity, align with the city's zoning

plan, and possess suitable environmental conditions. Once these criteria are met, the design process will proceed in accordance with the requirements. Facing problems in internet network connectivity, the number of assignments that are calculated, and also the interaction between lecturers and students.

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