

Assignment 2 - Reflective Write-Up

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Paramit Factory

Case Study

Ruang Kita Community Centre

My Project



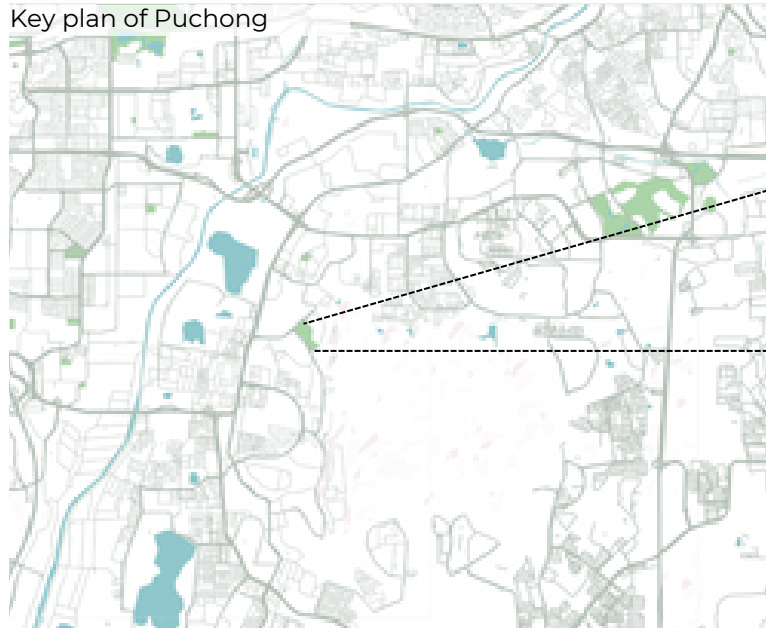
Introduction

As I developed the design for my final project which is a community centre located in Puchong, I continuously reflected on the Paramit Factory case study, also known as the “Factory in the Forest.” This award-winning Malaysian green building did not just demonstrate energy efficiency or climate-responsiveness; it told a story of deep respect for the environment. What struck me most was how the building didn’t attempt to dominate nature but it coexisted with it. Studying Paramit shifted my perspective on design. It helped me realise that sustainability isn’t just a layer you add to a building; it’s something that must be woven into every design decision. This lesson became especially meaningful in my own project, where part of the community centre is thoughtfully placed over an existing water body.

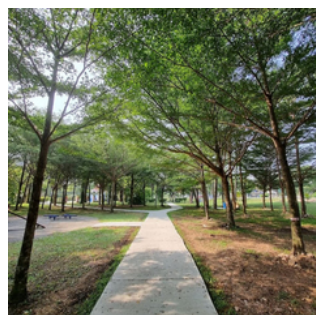


Taman Wawasan Recreational Park in Puchong, a 25-acre urban green space with a central lake, jogging tracks, and lush greenery, serves as a vital recreational hub for the local community. Introducing a wellness or community centre here would enhance its role by providing indoor health, relaxation, and social programs that complement the park’s existing outdoor activities. Since it is a wellness-focused facility, it would be ideal to incorporate some strategies inspired by the Paramit Factory, or even other green approaches, to support the overall sustainability and ecological integration of the centre within the park’s natural environment.

Key plan of Puchong



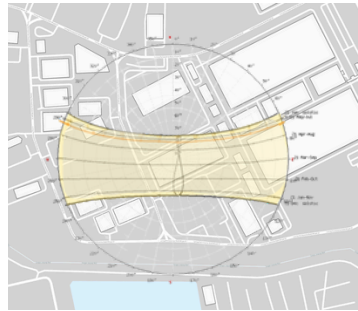
Location plan



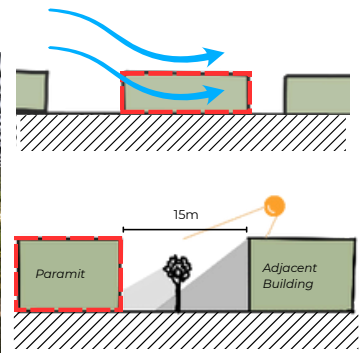
Site Planning

The Paramit Factory demonstrated a strong respect for its natural site conditions. Instead of clearing its existing vegetation and natural drainage patterns, the architects preserved and integrated them into the design. The building's zoning was arranged into four parallel strips—forest car park, office, courtyard, and manufacturing area—maximising environmental benefits. Oriented along a north-south axis, Paramit minimised heat gain from harsh east and west sun while optimising natural cross-ventilation from prevailing winds. This careful site planning allowed the factory to remain cool and well-integrated with its forest context, reducing reliance on mechanical systems.

Climatic-responsive orientation

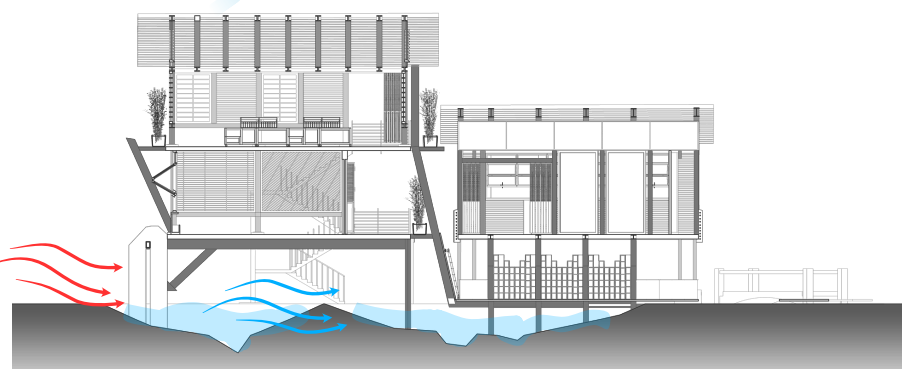


Embedded within a **tropical equatorial** context, characterized by consistently high ambient temperatures ranging from **30°C to 33°C** and intense year-round solar exposure.



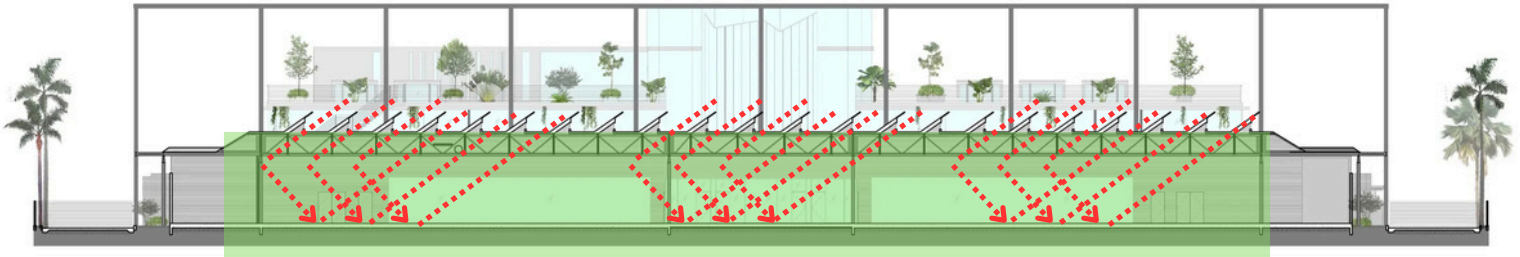
Application to My Project

Taman Wawasan Recreational Park already has a strong natural character, with mature trees, open green fields, and a natural water body. Like Paramit, I prioritised preserving the site's existing ecological features. Instead of altering the topography or filling the water body, I designed my community centre to integrate with it. The building is zoned into clusters of pavilions arranged along a north-south orientation, improving thermal comfort while allowing natural breezes to pass through. Public functions such as the multipurpose hall and workshops are placed along shaded edges, while quieter spaces like reading terraces are positioned closer to the water. This arrangement makes the building feel like an organic extension of the park, encouraging visitors to experience the surrounding nature.



Daylighting

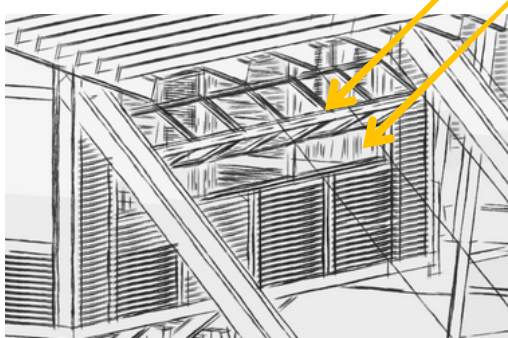
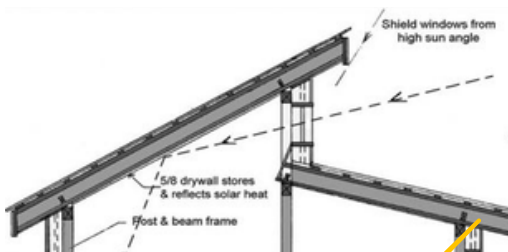
One of Paramit's most successful strategies is its use of daylighting. Sawtooth skylights angled at 22.5° brought in consistent, diffused daylight while avoiding glare. The white ceilings and floors bounced light deeper into the space, maintaining comfortable indoor luminance levels of 400–700 lux. Vegetation along façades further filtered harsh sunlight, balancing brightness and visual comfort. These measures not only reduced artificial lighting needs but also improved worker productivity and well-being.



The vegetations along the facade help provides filtered daylight for the edge of the building where there is no skylight and increase view quality from the inside

Application to My Project

In Taman Wawasan, where the community centre is intended for educational and social interaction, daylighting plays an equally crucial role. I used clerestory windows and high roof overhangs to bring soft, diffused light into larger communal spaces, such as the event hall and library corners. Vertical timber louvres and green walls filter strong sunlight, especially in areas facing east, while maintaining outward views of the park. Internally, timber finishes reflect daylight, creating warm, inviting interiors suitable for community gatherings. Inspired by Paramit, these strategies allow activities to take place in naturally lit, comfortable environments throughout the day, reinforcing the centre's airy and welcoming character.



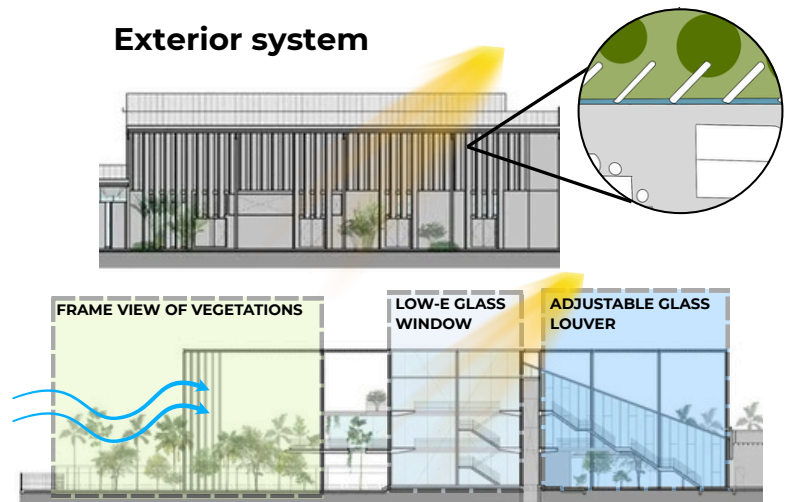
clerestory window



plants filter

Facade Design

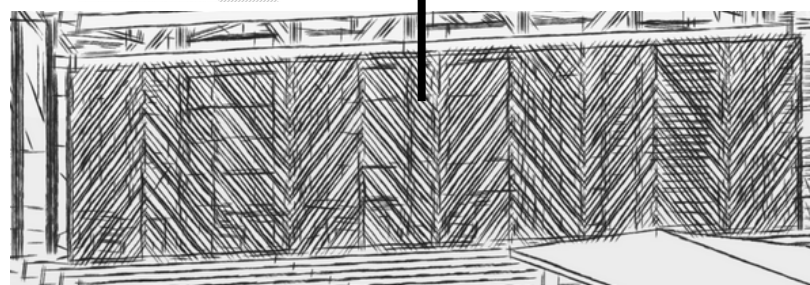
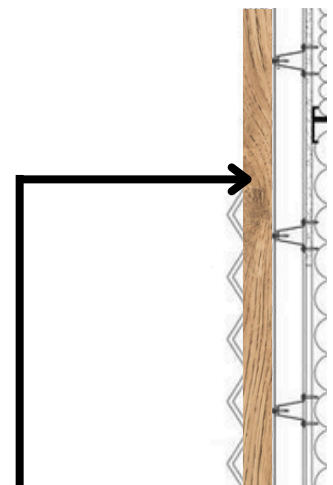
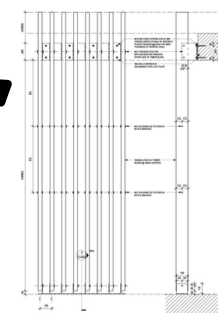
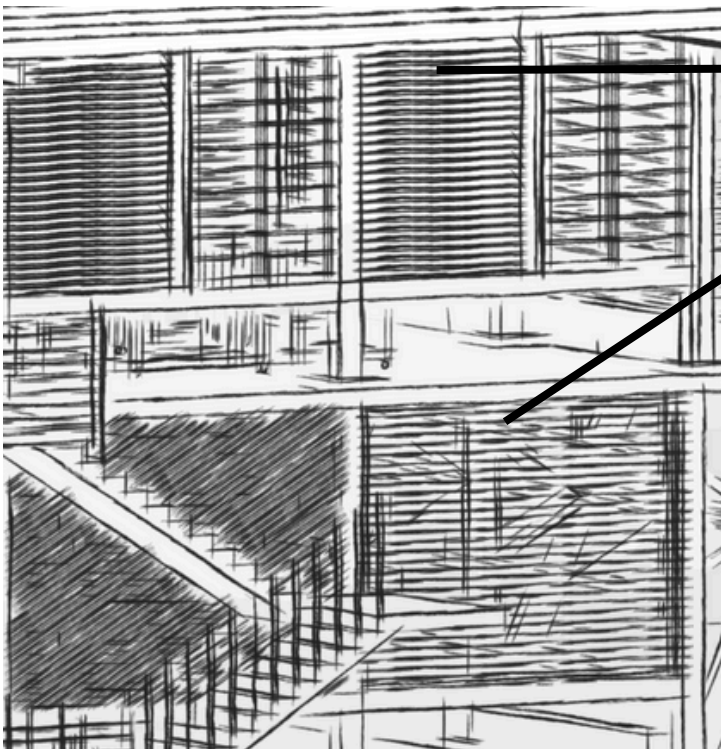
I was particularly struck by Paramit's façade design. The clever integration of concrete fins, a double-skin façade, and low-emissivity glazing impressed me greatly. Not only did these elements work in concert to significantly reduce heat gain, a crucial consideration in the local climate, but they also artfully framed picturesque views of the surrounding forest. This thoughtful design truly highlighted for me that façades are far more than mere aesthetic features; they are powerful, multi-functional tools that can expertly control a building's climate while profoundly shaping the user's experience and connection to the environment.



Application to my project

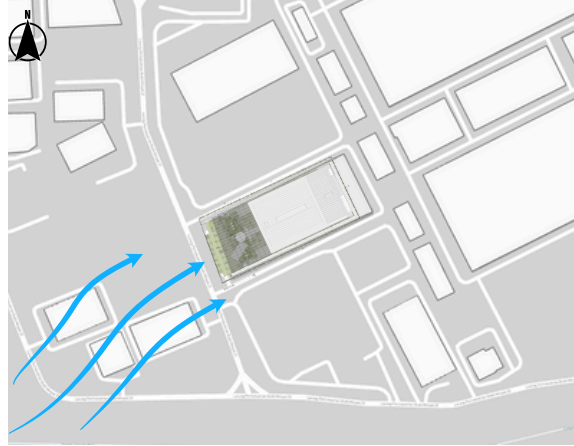
For the community centre, I adapted this principle by using softer, more tactile materials better suited for a recreational park setting. Instead of concrete fins, I opted for timber screens and timber louvers. These materials offer a warmer, more approachable feel, aligning with the welcoming nature of a public community building.

The timber screens are designed to regulate heat gain and provide filtered views of the surrounding park and water body. They also create dynamic, rhythmic shadows that animate the interior spaces. Additionally, adjustable timber louvers give users control over ventilation and privacy, fostering a sense of personalization and flexibility within the space. My goal was to evoke the same feeling of comfort and connection to nature that Paramit's occupants experience with their forest surroundings.



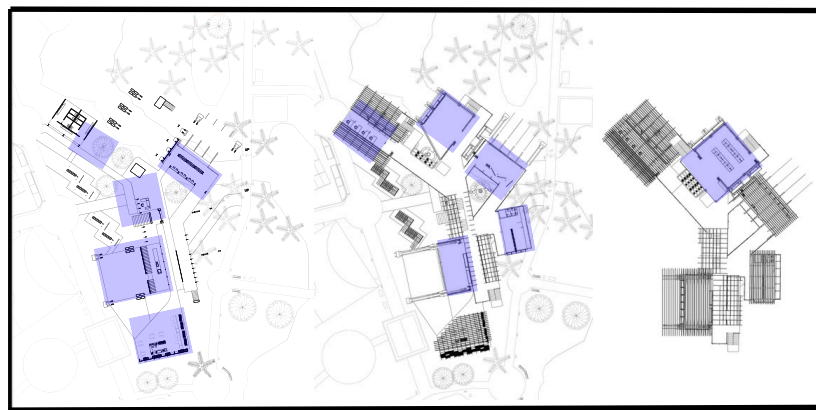
Natural Ventilation

What I found most effective about Paramit's natural ventilation was how it worked as a complete system rather than a single feature. The building was oriented to catch prevailing winds, while shaded courtyards and canopy roofs encouraged air to move naturally through cross-ventilation and stack effect. I realised that combining vegetation, shaded surfaces, and adjustable louvres pre-cooled the air before it entered the spaces, making it feel fresh and comfortable. The key takeaway for me was that natural ventilation in tropical design is not just about reducing energy but it also creates a healthier, breezier, and more enjoyable environment for users.

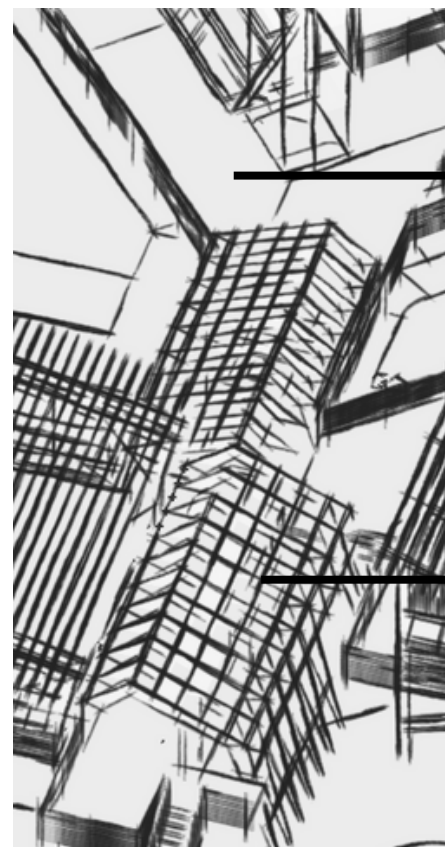
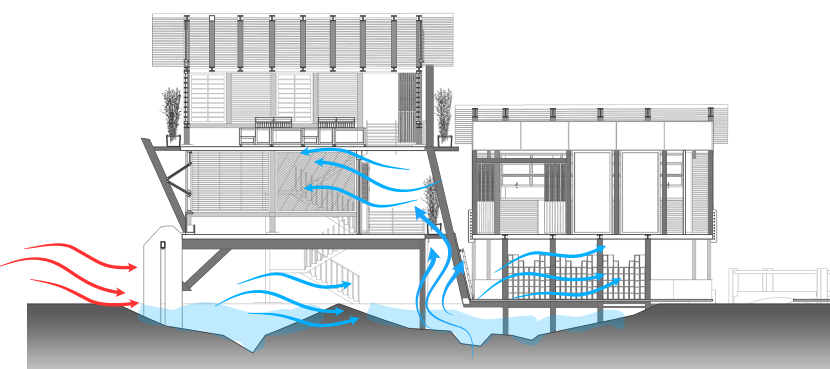


Application to my project

At Taman Wawasan, where the park already enjoys natural breezes, I amplified this by arranging my building as a series of interconnected blocks rather than a single large block. Open breezeways and shaded walkways link these clusters, encouraging airflow throughout the site. The decision to build over the water body also became functional; as breezes pass over the water, they cool before entering indoor spaces, improving thermal comfort. Clerestory openings and vented roofs allow hot air to rise and escape, keeping semi-outdoor spaces comfortable. Designing with these strategies made me appreciate how passive systems can achieve comfort without relying heavily on air-conditioning, which is particularly important in a recreational park context.



interconnected block

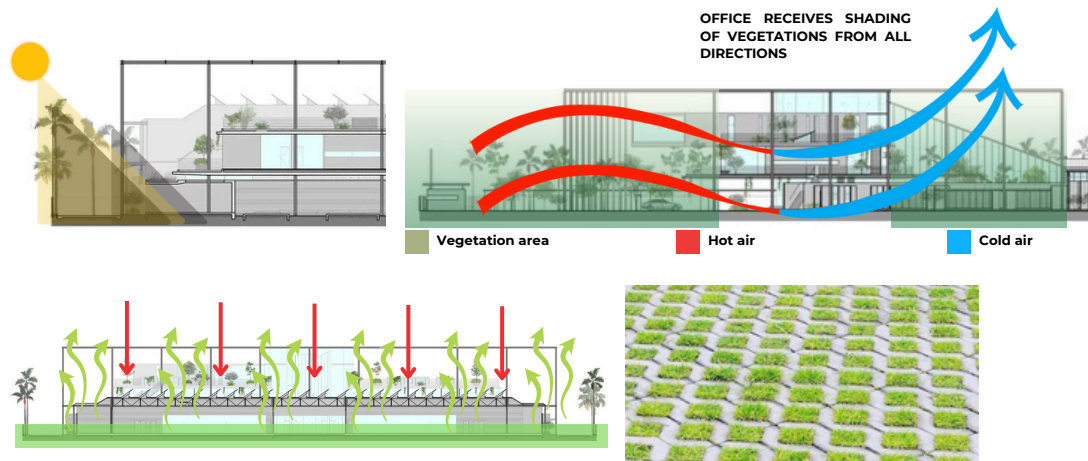


open
breezeways

shaded
walkways

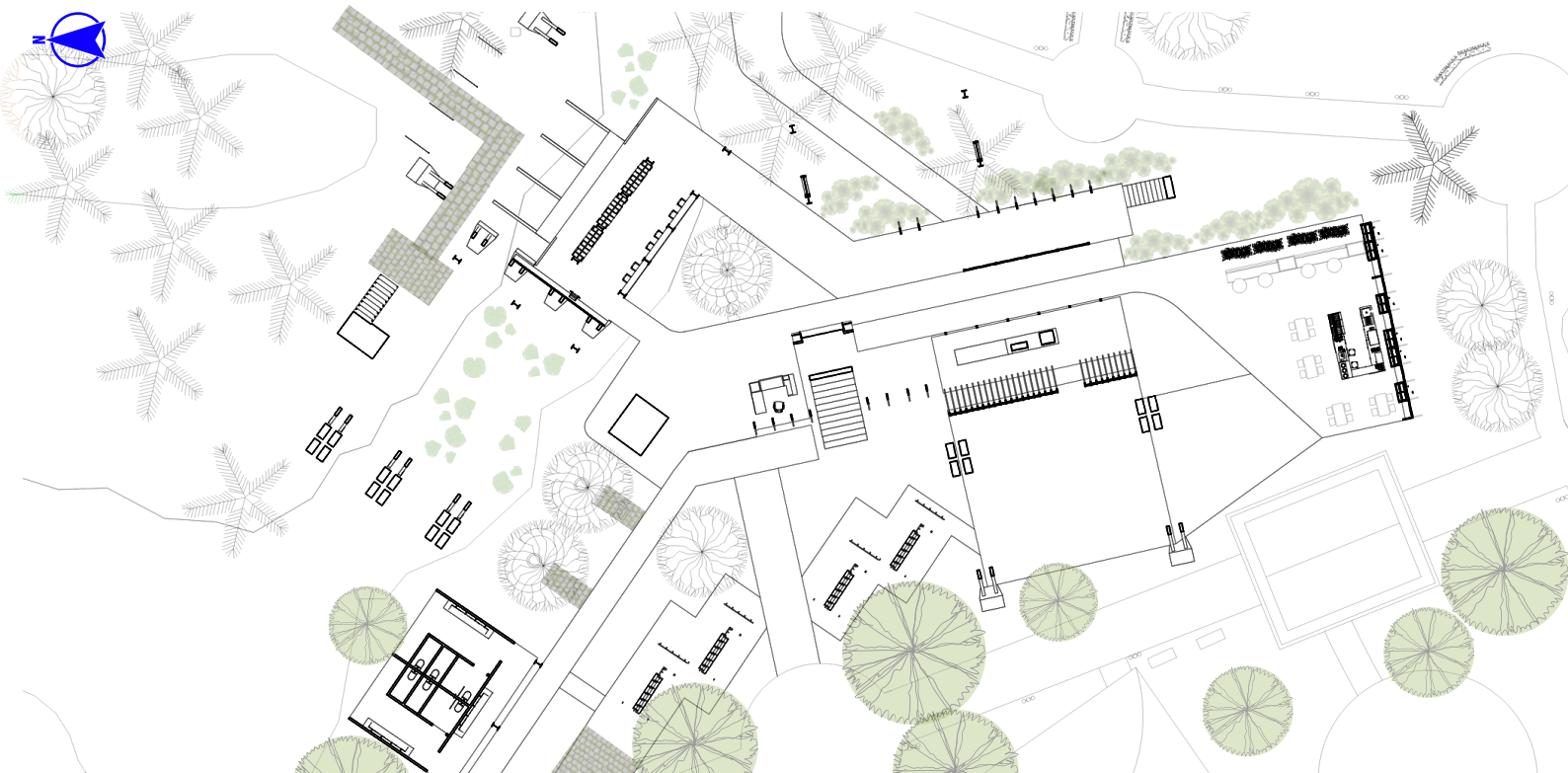
Strategic Landscaping

Paramit's landscaping impressed me because it was more than aesthetic—it functioned as a microclimate modifier. Dense trees with broad canopies were strategically placed on the west to block harsh afternoon sun, while shrubs on the north and south filtered light without obstructing views. The factory used landscaping to reduce surrounding air temperatures by as much as 5°C through shading and evapotranspiration, directly improving indoor comfort. What stood out to me was how vegetation was layered to work with the wind—cooled air generated around trees was guided into the building through cross-ventilation. I realised that in tropical climates, landscaping is not just softening the building visually; it is an active environmental system, just as important as façade or ventilation design.



Application to my project

In Taman Wawasan, I applied the same logic by focusing dense trees with heavy foliage along the western edges of the site to shield the centre from the harsh late-afternoon sun, keeping outdoor spaces comfortable. On the eastern side, where the morning sun is softer, I used lighter shrubs and native plants to allow filtered daylight and maintain pleasant views of the park. Around the water body, I introduced aquatic and riparian plants to cool the air naturally through evaporation and improve biodiversity. Pervious grasscrete pathways and soft ground surfaces help reduce heat retention and allow rainwater absorption, while blending the centre seamlessly into the recreational park. These strategies make outdoor spaces cooler and shaded, encouraging people to spend time outside even in the afternoon heat.



Conclusion

In a nutshell, the study of Paramit Factory has changed the way the relationship between buildings, climate, and people is understood. What stood out most was not the individual strategies themselves, but how they worked together to create a place that feels naturally comfortable and alive. It became clear that sustainability is not an added feature but something that begins with respecting what already exists on site and shaping spaces to respond to it.

This understanding shaped the approach to the community centre at Taman Wawasan Recreational Park. The aim was no longer just to design a functional facility, but to create a place that feels like part of the park—open, shaded, and cooled naturally by the wind and water around it. Every decision, from where to position trees to how spaces open towards the water, was guided by the same principle seen in Paramit: when nature is allowed to play its role, comfort follows naturally.

The key takeaway is that truly sustainable spaces are those that belong to their environment and feel effortless to use. Paramit showed how design can enhance daily life simply by working with the climate instead of against it. The community centre carries that same intention, offering a setting where people can feel at ease, connected to nature, and part of the place rather than separated from it.

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