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## CULTURE CATALYST: AN ARCHITECTURAL DESIGN EXPLORATION TO REVIVE THE TRADITIONAL SPLENDOR OF BESUT, TERENGGANU.

Wan Aisyah Aqilah Wan Ahmad Nazri and Fadzidah Abdullah\*  
Department of Architecture, Kulliyyah of Architecture and Environmental Design  
International Islamic University Malaysia

### ABSTRACT

This research aims to speculatively develop a culture catalyst, by having design exploration to revive the traditional splendor of Besut, a city in Terengganu State, Malaysia. This architectural design exploration has the objective of bringing together the illustrious elements of Besut culture to be enjoyed by both tourists and local community. Additionally, this architectural project will revitalize the existing culture of Besut and increase the potential of the tourism industry through a centralised one-stop centre for tourists to rediscover Besut in its natural setting. Through a seamless community magnet design, the architectural design will strengthen the local identity and culture while boosting local tourism activity. The proposed project, named Besut Cultural Centre, is located at Kampung Raja. The project will function as an introductory point and catalyst for cutting-edge culture and tourists' destinations in the district, that provides new experiences to visitors. This cultural center is planned to be a waterfront gateway destination that will honour the local culture and heritage in accordance with the Besut 2035 local plan.

**Keywords:** Cultural Centre, Design Exploration, Heritage of Besut, Tourism.

\* Corresponding author: fadzidah@iium.edu.my

Terengganu, controlled by the same family since 1701, was a Thai protectorate until a treaty in 1909 rendered it a British protectorate and one of the confederated Malay states. Following WWII, it became a member of the Federation of Malaya (1948). Terengganu has the attractions and grandeur of other Malaysian states. Despite fast expansion and modernization, the state has all the rural and picturesque attractions that distinguish it from other tourist destinations. Terengganu is home to a diversified and close-knit community, where people are polite and charming, with great morals and values.

People of different races have community relationships, a strong preference for local food, and speak the same local dialect. Terengganu is also endowed with unrivaled natural beauty. With the longest coastline (244km) of fantastic beaches, thick tropical rainforests, a secret paradise unaffected by time, and stunning islands with calm green waters that become brilliantly golden at the touch of the sun's first rays. Terengganu is also rich in customs and traditions that have been passed down through centuries and are reflected in its way of life, arts and handicrafts, traditional cuisine, and legacy. Terengganu is a vibrant tourism attraction.

Today, the state is a mixing pot of old and modern, set against the backdrop of Terengganu's traditional poise and beauty, where revolutionary change is mingled with values held dear by the people for generations. Terengganu receives cultural influences from its northern neighbors, Kelantan, and Thailand, because of its history and geographical location. The demand for modern development and the scarcity of land are the main factors causing rural areas to change into urban ones.

Across numerous nations, rural areas are being regarded as reservoirs that might one day supply land for construction. This mindset puts rural communities in grave danger and has the potential to damage long-standing traditions and heritage values. Bordered by the state of Kelantan to the north and to the east, the South China Sea — Besut is a district in Terengganu. Despite Jerteh being a significantly more developed district, Kampung Raja serves as the district's capital. Besut was formerly known as the Kingdom of Besut Darul Iman, and according to Malaysian historian Munshi Abdullah, Besut was founded by a group of pilgrims from Patani and Sumatra under the leadership of Che Latif of Palembang (Wiki.Impact, 2021).

### INTRODUCTION

The interaction between humans and the natural world has shaped the terrain of the Malay heartland, giving it a distinct identity. Malays have historically lived among mountains, rivers, and forests as well as along the shore. There are fourteen states in modern-day Malaysia, including the state of Terengganu located in the northeast of the peninsula. With an estimated population of 1,209,400, the state is the largest state in Peninsular Malaysia (Brinkhoff, 2023).

Terengganu is a state that covers around 13,035 square kilometers (Wikipedia, 2024). Its economy is mostly focused on small-scale businesses, crafts, fishing, and agriculture. It is frequently blamed for being one of Malaysia's poorest and least developed states due to its location and dearth of natural resources. Terengganu is a historical region of northeastern West Malaysia (Malaya), bordered by Kelantan (north and northwest) and Pahang (south and east) (south and southwest). It has a shoreline that stretches for 200 miles (320 kilometers) along the South China Sea (east).



Figure 1: Istana Lama Tengku Anjang which serves great history of Besut is currently not being used and maintained properly.

Besut is the home of many heritage values including one of Terengganu's oldest traditional crafts; the art of wood carving. The homes of local chieftains and kings used to be designed and built by local woodcarvers. The Islamic arts, as well as motifs found in leaves, flowers, fruits, and marine life, serve as a major source of inspiration for Terengganu's woodcarvers. Terengganu state is strategically located as a tourist destination.

People nowadays, especially the affluent, are becoming more aware of the need to maintain this legacy and decorate their workplaces. The rediscovery of Besut will attract people to get to know Besut and the culture of the people there. To remain relevant, Besut must strive through its values so that the place, the people, and the culture will not be forgotten and vanish in the future. The ideals embodied by the Malay rural character were advantageous for both the present and the next generations.



Figure 2: Cultural activities of people in Besut.



Hold the strong identity and background of the people in Besut.	Part of the source of income for the locals; improving the state of economy.	Allow for social cohesion to happen among the community and visitors coming to Besut.
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Figure 3: The cultures of Besut and their significance.

## DESIGN THESIS ISSUE AND PROBLEM

This architectural design thesis explores the challenges and opportunities surrounding the revitalization of cultural activities in Kampung Raja, Besut, a rural community located in the Terengganu state of Malaysia. The thesis issue at hand is the gradual decline of traditional cultural practices and activities in Kampung Raja due to various factors such as urbanization, modernization, and changing social dynamics. As a result, there is a growing concern among residents and cultural advocates about the loss of cultural heritage and identity within the community.

One of the key problems identified in the thesis is the lack of infrastructure, resources, and institutional support for cultural preservation and promotion in Kampung Raja. Despite the rich cultural heritage and traditions inherent in the community, there is a dearth of facilities, funding, and organizational capacity to sustain cultural activities and initiatives.

Table 1: Design thesis issues.

Cultural	Cause: No continuation of cultural activity	Malay cultural heritage in Terengganu is being forgotten
	Effect: Loss of identity and Genius Loci	
Architectural	Cause: Current facilities are not suitable for cultural activity	No designated space and central facilities
	Effect: Less exposure for people to experience cultural activity	
Social	Cause: No interaction between community especially the old and young	Cultural gap between the modern culture and traditional culture
	Effect: Loss of Malay Cultural Heritage value among the people	

## DESIGN AIM

The design thesis aims to develop a culture catalyst, by having design exploration to revive the traditional splendor of Besut, a city in Terengganu state of Malaysia.

## DESIGN OBJECTIVES

1. To develop architectural design that could preserve the tangible and intangible values of Malay Cultural Heritage.
2. To design a place of Besut Genius Loci that connects cultural heritage places in Besut.
3. To provide experiential solution for people to interact with local cultural heritage in Besut.

## DESIGN SIGNIFICANCE

The significance of this proposed project lies in its potential to address several critical aspects:

1. **Cultural Preservation and Promotion:** Architectural design plays a pivotal role in preserving and promoting cultural heritage. By creating a center focused on cultural exploration, the project can serve as a hub for showcasing and celebrating diverse cultures, traditions, and histories. It can help safeguard intangible cultural heritage through experiential learning and immersive experiences.
2. **Community Engagement and Social Cohesion:** The design thesis project can contribute to fostering community engagement and social cohesion by providing a space where people from different backgrounds can come together, exchange ideas, and build connections. It can serve as a platform for cultural dialogue, understanding, and appreciation, fostering a sense of belonging and unity among diverse communities.
3. **Educational Value:** The center can serve as an educational resource, offering interactive exhibits, workshops, and programs that provide insights into various cultural practices, art forms, languages, cuisines, and more. It can serve as a learning environment for students, scholars, and the general public, promoting cross-cultural understanding and global awareness.
4. **Tourism and Economic Development:** A well-designed cultural exploration center can attract tourists and visitors, contributing to the economic development of the region. By showcasing the unique cultural heritage of the area, the center can become a destination of interest, stimulating local businesses, hospitality services, and cultural tourism initiatives.
5. **Urban Revitalization and Regeneration:** In urban contexts, the establishment of a cultural exploration and experiential center can contribute to the revitalization and regeneration of neglected or underutilized areas. By repurposing existing structures or creating new architectural landmarks, the project can catalyze positive change, attract investment, and enhance the overall quality of life in the community.

## RESEARCH METHODOLOGY

Table 2: Research Methodology used for each Research Question.

Research Question	Methodology
How to preserve the tangible and intangible values of Malay Cultural Heritage?	Literature Review Observation Case Study
How to design a place of Besut Genius Loci that connects cultural heritage places in Besut?	Precedent Study Interview Survey
How to provide experiential solution for people to interact with local cultural heritage in Besut?	Literature Review Interview

## CULTURAL HERITAGE OF TERENGGANU

Terengganu is highly recognised for its power and wealth in Malaysian traditional cultural heritage. The state administration of Terengganu has established its own plans for preserving cultural assets based on their advantages and strengths in the tourism business.

Its seven districts are Besut, Setiu, Kuala Terengganu, Hulu Terengganu, Marang, Dungun, and Kemaman. Terengganu is a coastal state. Fishing, farming, boat building, traditional food, textiles, and crafts are hence traditional economic activities. As a result, the tourist sector is poised to make a significant contribution to Terengganu's GDP, which is already second only to oil and gas.

Terengganu is home to a wide range of cultural figures and artistic expressions. Tourists and visitors travel to Terengganu to explore the unique culture. Terengganu is also rich in traditions and customs, and it is clear that these traditions have been preserved in the locals' way of life, their handicrafts, and their traditional food. In Terengganu, a tropical paradise, visitors can rejuvenate their senses while discovering stunning natural beauty and a wide variety of cultures and heritage.

The state government has safeguarded them under conservation planning laws, such as listed buildings or monuments, as acknowledged by Goodall, B., & Stabler, M. (1997, 2004), placing considerable stress on the significance of heritage, culture, and environment in the tourism business. With this endeavor, Terengganu's annual visitor count is rising.

The traditional culture of the Malay people is what draws most visitors from abroad to Malaysia. They can experience the environment in the rain forest as well as observe and learn about the traditional Malay way of life, heritage, and custom. In the meantime, vintage goods became crucial in expanding the features of products in the tourism program.

## TRADITIONAL MALAY ARCHITECTURE

Traditional Malay Architecture incorporates influences from various indigenous, Hindu, Buddhist, Chinese, and Islamic architectural traditions. Key features of traditional Malay architecture include raised wooden houses known as “rumah panggung,” intricate woodcarvings, steeply pitched roofs with extended eaves, and effective ventilation systems designed to cope with the tropical climate. These architectural elements serve both functional and symbolic purposes, contributing to the aesthetic appeal and cultural significance of Malay structures.

One of the most iconic features of traditional Malay architecture is the “rumah panggung” or raised house. Elevated on stilts, these houses provide protection from flooding and pests while allowing air circulation underneath to cool the living spaces. The construction of rumah panggung typically utilizes local materials such as timber, bamboo, and thatch, showcasing the ingenuity of Malay builders in adapting to their natural environment.

In addition to rumah panggung, traditional Malay architecture is renowned for its intricate woodcarvings adorning doorways, windows, and structural elements. These carvings often depict floral motifs, geometric patterns, and Islamic calligraphy, reflecting the cultural and religious influences prevalent in Malay society. Woodcarving is not merely decorative but also serves as a form of cultural expression, preserving Malay heritage and craftsmanship for future generations.

The steeply pitched roofs with extended eaves are another hallmark of traditional Malay architecture, designed to provide shade and protection from heavy rainfall. The roof structures are typically made of thatch or clay tiles, arranged in overlapping layers to ensure effective drainage. The generous overhangs of the eaves also help to channel rainwater away from the walls, preventing water damage and maintaining the integrity of the building over time.

Furthermore, traditional Malay architecture embodies a deep connection to nature and spirituality, with many design elements influenced by Malay cosmology, beliefs, and rituals. From the orientation of buildings to the placement of windows and doorways, every aspect of traditional Malay architecture is imbued with symbolic meaning, reflecting the harmonious relationship between humans, the natural world, and the divine.



Figure 4: Attap houses close to the banks of the Klang River, circa 1920. (Source: Cheah Jin Seng, 2011).

## KAMPUNG RAJA ‘KAMPUNG WARISAN’

Kampung Raja, also known as “Kampung Warisan,” stands as a quintessential example of a heritage village in Besut, Terengganu, Malaysia. Kampung Raja holds immense cultural significance as a bastion of Malay heritage, preserving traditional customs, crafts, and lifestyle practices that have endured for generations. Scholars such as Abdul Latip Talib and Nik Mohd. Hazrul Nik Hashim emphasize the village’s role as a cultural landmark, where residents uphold Malay traditions through activities such as batik-making, kite-flying, and traditional music performances.

Kampung Raja was originally known as Kampung Palembang and as it developed, people started to call it the City of Palembang. It was once a stop centre for traders from Palembang and Pattani, Thailand. However, Kampung Raja, Besut got its name due to the existence of royal institution and ruling at that time. There were five kings who ruled Kampung Raja which ended with Tengku Long. The village evolved from a small settlement to a thriving community, shaped by its strategic location along ancient trade routes and its close ties to the surrounding natural landscape. Through the lens of history, Kampung Raja emerges as a testament to the resilience and adaptability of Malay culture.

At the heart of Kampung Raja’s allure lies its architectural heritage, characterized by traditional Malay wooden houses (“rumah kayu”) and intricate craftsmanship. The distinctive features of these houses include raised platforms, steeply pitched roofs, and ornate woodcarvings that reflect the village’s cultural identity and aesthetic sensibilities. The architectural charm of Kampung Raja serves as a living testament to the craftsmanship and ingenuity of past generations, captivating visitors and residents alike with its timeless beauty. The birth of many famous carvers in Besut, Terengganu, started because Kampung Raja itself had monarchy ruling system. In the past, king palaces such as Istana Tengku Long and other palace developments needed renowned carpenters and carvers as they have to be developed neatly and adorned with woodcarving motifs that had respective meanings. Many woodcarvers who are famous throughout the country were born in Kampung Raja, Besut, including Che long bin Yusof, Tengku Ibrahim bin Tengku Wook, Haji Wan Su bin Othman, Abd Rahman Long, Wan Mustaffa bin Wan Su and Norhaiza bin Noordin.

Kampung Raja pulsates with vibrant cultural traditions that resonate with the rhythms of Malay life. From age-old rituals and festivals to traditional crafts and culinary delights, the village is a treasure trove of cultural heritage waiting to be explored. Through dance, music, storytelling, and the culinary arts, Kampung Raja’s cultural traditions come alive, fostering a deep sense of pride and belonging among its residents.



Figure 5: The strategic location of Kampung Raja between two towns.

## SITE LOCATION



Figure 6: Map of Terengganu.  
(Source: Majlis Bandaraya Kuala Terengganu)

The State of Terengganu Darul Iman is one of the states located on the East Coast of Peninsular Malaysia. It is located between longitude 102.25 to 103.50 and latitude 4 to 5.50. In the north and northwest, it borders Kelantan while in the south and southwest it borders Pahang. The current area of Terengganu state is approximately 1,295,638.3 hectares / 1,295,512.1 hectares. The coastline stretches as far as 225 kilometers from north (Besut) to the south (Kemaman).

Before 1947 there were nine districts in Terengganu which are Kuala Terengganu, Kemaman, Kemasik, Paka, Dungun, Marang, Hulu Terengganu, Besut and Setiu. Then, the districts within the State of Terengganu are reduced to six - Kuala Terengganu, Kemaman, Dungun, Marang, Hulu Terengganu and Besut. Then, on January 1, 1985, a new district called Setiu was formed and became the seventh district in the state of Terengganu. Each of these districts is administered by a District Officer.

In 1365, Terengganu is identified as a subordinate state of Majapahit, a Javanese dynasty. Held by the same family since 1701, the sultanate of Terengganu was administered by the Thais until 1909, when a treaty turned it into a British protectorate and one of the unfederated Malay states. It became a member of the Federation of Malaya (1948) after World War II.

The site is in Besut which is a district located in the northern part of the State of Terengganu and borders with the State of Kelantan in the north and west. The district is surrounded by the South China Sea along its Northeast coast and supported by the Titiwangsa Range in its western part.

There are three main towns and four settlement centers that play an important role in offering goods, services and administration to residents within the Besut District Council area. The cities are Jerteh, Kampong Raja and Kuala Besut,

## SITE SELECTION

Kampung Raja, Besut, Terengganu  
↓  
Woodcarving District of Malaysia



Figure 7: Site selection criteria.



View Facing Vista



View Towards Site From Jalan Tengku Long



Figure 8: Views of existing site.

## SITE ANALYSIS



Figure 9: Masterplan of Kampung Raja.

The site, located in Kampung Raja, Besut, Terengganu, Malaysia is renowned for its traditional woodcarving heritage, and is surrounded by lush greenery and water bodies, creating a serene and picturesque setting. The site's topography is flat, but the elevation changes towards the river. The site is not fully developed yet; thus, the natural features still exist. The site is adjacent to Sungai Besut; which will be an advantage and must be considered during the design process.

As Malaysia is located on the equator, the whole country experiences a hot and wet climate all year. Adding to that, Besut specifically has rain all year round, with the highest rainfall recorded during the monsoon season which is from November until March every year.

Table 3: SWOT Analysis.

STRENGTH	WEAKNESS	OPPORTUNITY	THREAT
<ul style="list-style-type: none"> <li>- Easily accessible through the main route from Kuala Terengganu to Kuala Besut.</li> <li>- Desa Ukiran Kayu and an Istana Lama Tengku Anjang is located in the site boundary.</li> </ul>	<ul style="list-style-type: none"> <li>- Some neighbouring context is undeveloped and not being treated well.</li> </ul>	<ul style="list-style-type: none"> <li>- Clear promenade can be proposed along Sungai Besut.</li> <li>- Community in the area are keen on heritage and culture.</li> </ul>	<ul style="list-style-type: none"> <li>- The site location is prone to flood.</li> <li>- There is a woodcarving learning centre nearby the site.</li> </ul>

## DESIGN BRIEF FORMULATION

Aim:  
To revive Besut cultural activity in Kampung Raja, Terengganu.

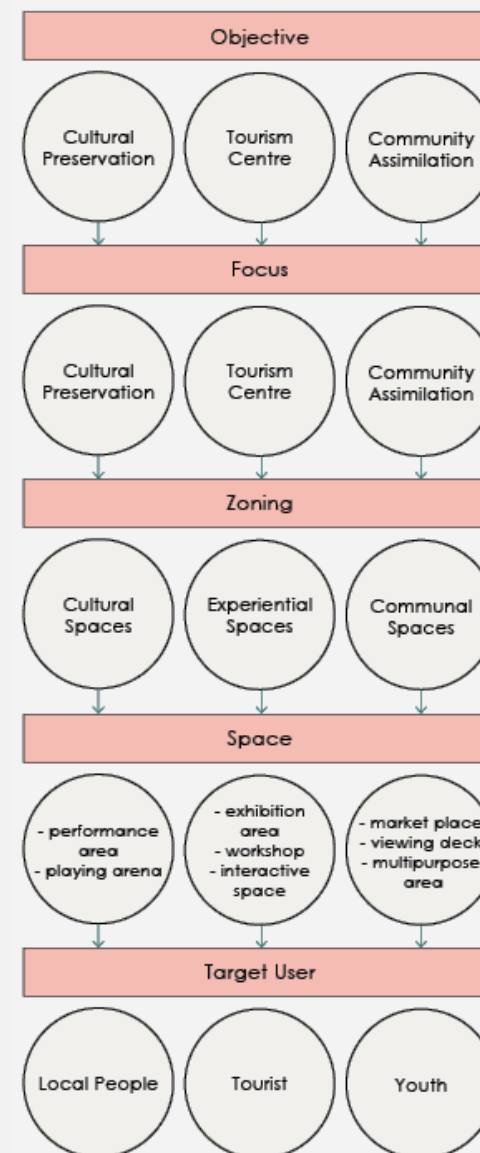


Figure 10: The sequence of design brief exploration.

## SPACE & ACTIVITY

1. Cultural Exhibition Spaces: Dedicated areas to showcase artifacts, photographs, and multimedia displays highlighting the history, traditions, and craftsmanship of Besut, with a focus on woodcarving and other local arts.
2. Artisan Workshops: Interactive spaces where visitors can observe and engage with skilled artisans as they demonstrate traditional crafts such as woodcarving, weaving, and batik-making, offering hands-on experiences for learning and appreciation.
3. Performance Areas: Outdoor stages or indoor theaters for cultural performances, including traditional music, dance, and theatrical productions, providing entertainment and opportunities for cultural exchange.
4. Hands-on Activities: Workshops and classes offer visitors the chance to try their hand at traditional crafts, such as woodcarving, pottery, or traditional cooking, under the guidance of experienced instructors.
5. Cultural Market: A marketplace featuring stalls and shops selling locally-made handicrafts, artwork, and traditional products, providing opportunities for visitors to support local artisans and take home unique souvenirs.
6. Cultural Trails: Guided tours or self-guided pathways through the village and surrounding areas, showcasing historical landmarks, cultural sites, and natural attractions, offering insights into the local way of life and the significance of the region's heritage.
7. Community Spaces: Gathering areas where visitors can interact with local residents, participate in community events, and learn about the daily life and customs of the village, fostering connections and cultural exchange between visitors and the local community.



Figure 11: Journey between spaces.

## CONCEPT: RE-BLOOM

"Rebloom" embraces the idea of renewal and regeneration, reflecting the ongoing evolution of cultural heritage. Inspired by the natural process of reblooming, where plants regenerate and flourish after a period of dormancy, the architectural design embodies themes of growth, transformation, and sustainability.

The center's architecture could incorporate organic forms, biomimicry principles, and sustainable materials to create a harmonious integration with the surrounding landscape. Additionally, the concept of rebloom can be translated into flexible and adaptable spaces within the center, allowing for dynamic programming and the continual reimagining of cultural experiences.

Through the concept of rebloom, the cultural exploration and experiential center seeks to celebrate the enduring vitality of Kampung Raja's cultural heritage while embracing innovation and creativity for the future.



Figure 12: Awan Larat Punca Ibu.  
(Source: Nangkula Utaberta and Azreena Abubakar, 2014)

### Awan Larat Punca Ibu

- Plant motifs with a complete pattern arranged in a chain. Inspiration from the shape of clouds in space that are constantly moving and changing their shape.
- Starts with a definite point of source (datum), spreads into other spaces.

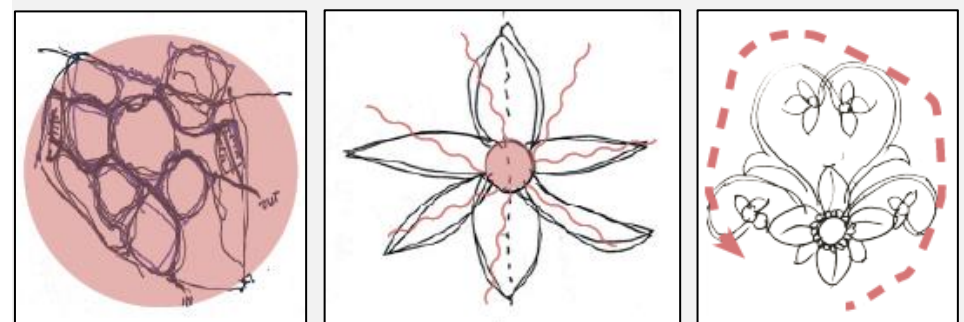


Figure 13: Sketches evolved from the concept.

**PLANS**



Figure 14: Site Plan.



Figure 15: Ground Floor Plan.



Figure 16: First Floor Plan.

**PERSPECTIVE VIEWS**



Figure 17: A view of the waterfront.



Figure 17: Vie of the waterfront.

Figure 18: A view of the central plaza.



Figure 19: The main Entrance of Besut Cultural Centre.



Figure 20: A view of the whole architectural complex.



## ADAPTIVE FAÇADE SYSTEM

An adaptive facade system refers to a building envelope or exterior structure that can dynamically respond and adapt to changes in environmental conditions, occupant preferences, or building performance requirements. These systems utilize innovative technologies and design strategies to optimize energy efficiency, occupant comfort, and overall building performance while enhancing architectural aesthetics.

One example of an adaptive facade system is a dynamic shading system that adjusts its position or opacity based on the angle of the sun, time of day, or outdoor temperature. This system can help reduce solar heat gain, glare, and energy consumption by modulating the amount of sunlight entering the building interior.

Additionally, adaptive facade systems may incorporate smart materials, such as electrochromic or thermochromic glass, that change their properties in response to external stimuli such as light, heat, or electricity. These materials can help regulate daylighting, solar heat gain, and privacy while providing occupants with greater control over their indoor environment.

Overall, adaptive facade systems represent a cutting-edge approach to building design and construction, offering flexibility, sustainability, and performance optimization in response to evolving environmental and user needs.



Figure 21: Implementation of adaptive façade system.

## CONCLUSION

The exploration of this design thesis has produced an architectural facility that could be used to uphold Malaysian government inspiration for the safeguarding of cultural heritage. The exploration to propose a cultural catalyst to revive the traditional splendor of Besut has been successfully accomplished and the project is specifically named *Desa Warisan Besut* (Besut Heritage Village). *Desa Warisan Besut* is a place of cultural exploration and experiential centre that would provide a wide range of benefits both to the visitors and local people of Besut, especially in Kampung Raja. Economically, the development of *Desa Warisan Besut* could boost the income of the local people while also increasing tourism in the state of Terengganu.

Culture is an intangible asset and value of the people that should not be abandoned. Instead, it shall always be treasured and practiced according to its relevance to remain the unique identity of any group of people. Accordingly, *Desa Warisan Besut* could be a place of cultural assimilation where generations meet across ages and places in the world. The demand for cultural learning and experience is fulfilled through this design thesis. In terms of social aspects, the quality of life for residents of Kampung Raja will be elevated whether they are directly or indirectly involved at the cultural exploration and experiential centre.

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