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ECHO OF EARTH: THE LABU SAYONG HERITAGE CENTRE

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Abstract:

The Labu Sayong Heritage Center in Kuala Kangsar, Perak, plays a critical role in the preservation and dissemination of Malaysia's traditional pottery heritage. Centered on the production of *Labu Sayong*—a distinctive, gourd-shaped water vessel made from natural clay—the center functions as both a cultural institution and a site of active knowledge transmission. This study examines the historical significance, aesthetic value, and cultural relevance of *Labu Sayong*, as well as the center's efforts in sustaining the craft through community engagement, artisanal training, and tourism-based educational programs. By exploring the intersection of tradition and innovation, the Labu Sayong Heritage Center exemplifies a successful model of heritage conservation that contributes to the continuity of intangible cultural assets in contemporary Malaysian society.

Keywords : Heritage Center, cultural institution, heritage conservation

Introduction

Traditional crafts are a vital component of a nation's intangible cultural heritage, reflecting the identity, values, and historical continuity of its people. In Malaysia, one such craft that has endured through generations is *Labu Sayong*—a hand-crafted, gourd-shaped clay water vessel traditionally used by the Malay community for its ability to keep water cool and fresh. Originating from the village of Sayong in Kuala Kangsar, Perak, *Labu Sayong* has become emblematic of Malay craftsmanship, combining functional utility with aesthetic refinement.

In response to the growing need for heritage preservation amidst rapid modernization, the **Labu Sayong Heritage Center** was established as a dedicated institution to safeguard and revitalize this traditional art form. The center serves not only as a production site but also as a living museum and educational facility, where artisans, students, and tourists can engage directly with the processes and narratives surrounding *Labu Sayong*. This paper explores the role of the Labu Sayong Heritage Center in preserving cultural heritage, promoting artisanal knowledge, and sustaining local identity in a changing socio-economic landscape.

Literature Review

The study of traditional crafts and their role in cultural heritage preservation has garnered increasing academic interest, particularly within the context of globalization and cultural homogenization. Scholars such as Smith (2006) and Taylor (2016) have argued that intangible cultural practices, including traditional crafts, are essential to sustaining local identities and ensuring intergenerational cultural continuity. In Southeast Asia, numerous studies have examined how indigenous art forms are being recontextualized within heritage tourism and education frameworks (Aziz & Jamaluddin, 2019; Tan, 2021).

In Malaysia, *Labu Sayong* has been identified as a distinctive representation of Malay artisanal heritage. According to Ismail and Ahmad (2015), the vessel's unique form and function symbolize the convergence of utilitarian and aesthetic values in traditional Malay society. The cooling effect of the unglazed, porous clay, coupled with its intricate hand-carved designs, reflects a deep knowledge of natural materials and environmental adaptation. Furthermore, Wan Mohd Yusof et al. (2020) highlight the cultural and spiritual associations of *Labu Sayong*, noting its role in domestic life and ceremonial use.

The literature also emphasizes the challenges faced in sustaining traditional crafts amid industrialization and urban migration. Many scholars advocate for institutional support and innovation to maintain craft relevance (Mohd Salleh & Ibrahim, 2018). The establishment of the Labu Sayong Heritage Center is seen as a proactive response to these challenges, offering a model for integrated heritage conservation through tourism, education, and economic empowerment. Studies by Nurhaliza et al. (2022) underline the importance of such centers in providing artisans with platforms for knowledge transfer, product development, and community resilience.

While previous research has addressed the cultural and economic aspects of *Labu Sayong*, fewer studies have explored the effectiveness of heritage centers as dynamic agents of cultural sustainability. This review positions the Labu Sayong Heritage Center within this gap, highlighting the need for further investigation into its role as a bridge between tradition and contemporary practice.

Objectives

This study and project initiative aim to achieve the following objectives:

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1. **To reflect and celebrate the unique cultural identity of the Labu Sayong tradition** This objective seeks to emphasize the historical and cultural significance of Labu Sayong as a symbol of Malay heritage. Through research, documentation, and public engagement, the project aims to raise awareness and appreciation of this traditional craft, fostering pride and continuity within the local community.
2. **To develop a community hub offering workshops, live demonstrations, and interactive sessions** The proposed heritage center will serve as a dynamic community space where visitors and younger generations can actively engage with the Labu Sayong making process. By providing hands-on experiences and direct interaction with skilled artisans, the hub will function as a living platform for cultural transmission and education.
3. **To propose a hub that complies with sustainable design principles** In alignment with environmental and socio-economic goals, the center will integrate sustainable architectural and operational practices. This includes the use of eco-friendly materials, energy-efficient systems, and resource-conscious planning. Additionally, the initiative aims to generate employment opportunities for local artisans and residents, contributing to the community's economic resilience.

Problem Statement

The integration of sustainability within culturally rooted architecture presents a complex set of challenges, particularly in projects aiming to preserve and promote heritage. One of the primary issues is the tension between cultural aesthetics and sustainable design. Traditional expectations often associate cultural buildings with grandeur, ornamentation, and symbolic architecture, whereas sustainable structures tend to adopt minimalist forms that prioritize functionality and environmental efficiency. This aesthetic disconnect can lead to public perception of sustainable buildings as uninspiring or lacking cultural identity, making it difficult for architects to reconcile design appeal with ecological responsibility.

In addition, the limited availability of sustainable, locally sourced construction materials poses a significant challenge. The environmental benefits of green architecture can be undermined by the carbon emissions associated with transporting materials from distant locations. For heritage projects such as the Labu Sayong Heritage Center, reliance on non-local resources contradicts the sustainability ethos and risks compromising the authenticity of the cultural narrative.

Furthermore, spatial limitations often hinder the implementation of passive design strategies such as natural lighting and ventilation, which are essential components of liveable and energy-efficient environments. Creating a functional space that accommodates public interaction, workshops, and educational activities—while also meeting sustainability benchmarks—requires innovative architectural approaches within often-constrained physical contexts.

These interconnected challenges highlight the need for a design framework that respects cultural aesthetics, prioritizes local materials, and adapts creatively to spatial limitations in order to deliver a sustainable and culturally resonant built environment.

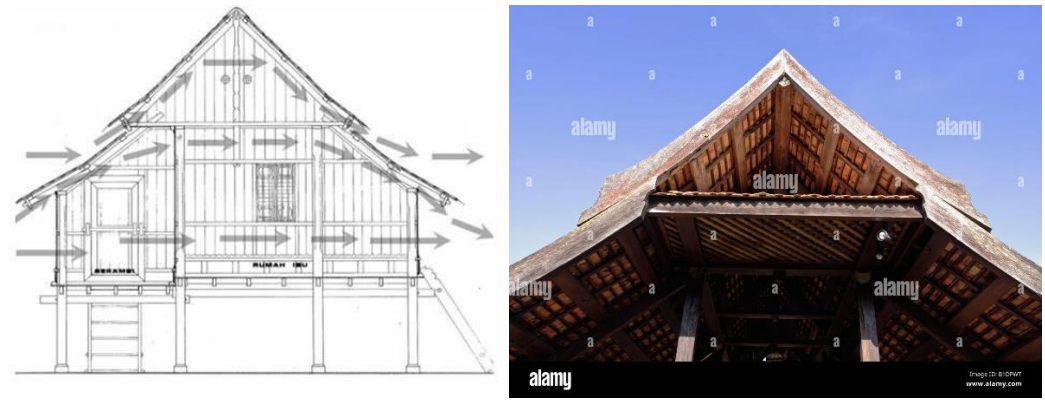
Findings

The design exploration for the Labu Sayong Heritage Center reveals several key strategies that align cultural identity with sustainable architectural principles:

1. **Façade Treatments Reflecting Cultural Identity**
   The use of sun-shading devices and green walls has been identified as an effective strategy for reducing heat gain while enhancing the visual and symbolic quality of the building's façade. When integrated with traditional Malay motifs, these treatments serve a dual function: improving environmental performance and reinforcing cultural expression. Malay design patterns, often inspired by flora and fauna, reflect the natural biodiversity of the region and promote harmony between built form and environment.

2. **Local Material Utilization: Clay**
   Clay, a widely available natural resource in the region, has been recognized not only as the **primary** material for Labu Sayong pottery but also as a sustainable building material, especially for roofing and wall elements. Utilizing clay sourced from local suppliers supports the eco-conscious goal of reducing transportation emissions while simultaneously stimulating the local economy. This approach ensures material authenticity, cost efficiency, and promotes economic empowerment for surrounding communities engaged in clay production.

3. **Climate-Responsive Roof Design**
   Incorporating a high-pitched roof design is found to be beneficial in regions experiencing heavy rainfall, such as Perak. This roof form allows for efficient water runoff while also minimizing solar heat gain. Additionally, the inclusion of open gable ends and skylights supports passive design strategies by increasing natural daylight penetration and promoting ventilation. These elements reduce reliance on artificial lighting and mechanical cooling, further enhancing the building's environmental performance.



These findings demonstrate that traditional Malay architecture offers numerous elements that can be reinterpreted through a sustainable lens, creating a design that is both ecologically responsible and culturally grounded.

Solution Method

To address the challenges of integrating sustainability with cultural aesthetics in the design of the Labu Sayong Heritage Center, a multi-faceted approach has been proposed. This approach leverages passive design strategies, renewable energy technologies, and the use of eco-friendly, locally available materials to create a functional, climate-responsive, and culturally expressive built environment.

1. Passive Design Strategies for Natural Lighting and Ventilation Low-Emissivity (Low-E), glass is utilized throughout the structure to maximize natural light transmission while minimizing heat gain and thermal energy transfer. The installation of Low-E glass flooring between the first and second floors further enhances natural illumination along the central corridors, reducing dependence on artificial lighting. In addition, strategically positioned skylights allow abundant daylight to penetrate interior spaces, contributing to both energy efficiency and a welcoming spatial experience.
2. Integration of Renewable Energy Systems. The implementation of solar photovoltaic (PV) panels on the building's roof provides a clean, renewable source of electricity, significantly reducing reliance on fossil fuels and lowering carbon emissions. An electric vehicle (EV) charging station, powered by the same solar system, supports sustainable transportation initiatives and aligns with broader environmental goals. These measures contribute meaningfully to climate change mitigation efforts.
3. Façade and Outdoor Climate Control Solutions. To enhance thermal comfort and environmental performance, sun-shading devices coupled with green walls are introduced along the building façade. These systems reduce solar heat gain, improve microclimate conditions, and provide visual connection to traditional Malay design elements inspired by nature, thereby blending sustainability with cultural identity.
4. Sustainable and Locally Sourced Building Materials. The use of recycled coconut husk for acoustic wall panels in the auditorium offers a renewable, non-toxic, and low-impact solution that enhances indoor acoustic comfort. Similarly, reclaimed timber is employed for interior wall finishes, contributing both aesthetic richness and environmental sustainability. These materials not only reduce waste and reliance on virgin resources but also support a design language rooted in natural textures and traditional values.

Collectively, these solutions demonstrate a viable method for integrating sustainability, cultural expression, and functional performance into the architectural design of heritage-driven community spaces.

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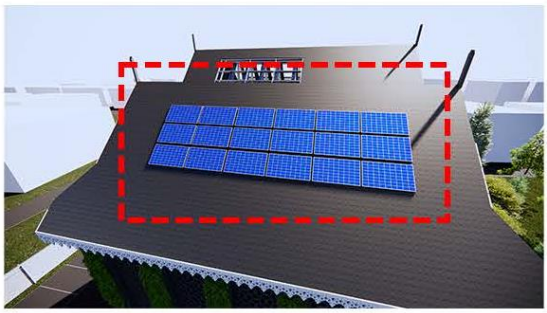
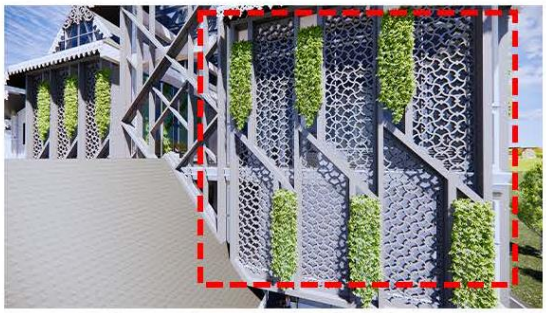


Solar panels or **pv(photovoltaic)** generate electricity **without emitting greenhouse gases like carbon dioxide, methane, or nitrogen oxides. The** solar power helps to mitigate climate change by **reducing overall greenhouse gas emissions.**



Sun shades with **green walls** offers numerous benefits, **including thermal comfort**, **aesthetic enhancement**, and **environmental sustainability**, making it an attractive option for outdoor spaces.

Reclaimed timber wall finishes have a transformative impact on **interior design**, **offering aesthetic**, **tactile**, and **environmental benefits** that contribute to **creating visually stunning**, **sustainable**, and **emotionally resonant spaces**.

Recycled coconut husk as materials for **acoustic walls** used at auditorium contribute to the overall **resilience and health of our built environment**, its typically **non-toxic** and pose minimal health risks. Coconuts are a **renewable** resource that can be harvested annually without **depleting natural ecosystems.**

Conclusion

The Labu Sayong Heritage Center stands as a powerful model for how cultural preservation and sustainable architecture can coexist to serve broader societal goals. Its sustainability initiatives go beyond environmental conservation—they foster intergenerational knowledge transfer, promote community resilience, and enhance the quality of life through cultural continuity. By incorporating locally sourced materials, passive design strategies, and renewable energy systems, the center not only minimizes its ecological footprint but also revitalizes traditional practices in a contemporary context.

Moreover, the center's alignment with the United Nations Sustainable Development Goals (SDGs), as championed by UNICEF, highlights its role in addressing complex global challenges such as poverty, inequality, environmental degradation, and cultural erosion. In this way, the Labu Sayong Heritage Center becomes more than a space for artisanal demonstration—it becomes a **catalyst for transformative change**, where sustainability, cultural identity, and community development intersect. It represents a vision for the future in which architecture not only shelters but empowers, educates, and uplifts.