

# PRESERVING CULTURAL HERITAGE IN BALI: SUSTAINABLE ARCHITECTURAL STRATEGIES FOR TOURISM DEVELOPMENT

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## ABSTRACT

*Bali, an Indonesian island known for its rich cultural heritage, has become a popular tourist destination. The tourism industry in Bali has been a significant contributor to the local economy, but it has also posed challenges in terms of environmental and cultural sustainability. This article aims to explore the preservation of cultural heritage in Bali through sustainable architectural strategies, focusing on traditional Balinese architecture.*

*The research methodology for this article will involve a literature review of existing studies on sustainable tourism in Bali and the role of cultural heritage in this process. The study will focus on the traditional Balinese architecture, which is an integral part of the island's cultural heritage. The research will also consider the challenges and opportunities associated with the integration of sustainable architectural strategies in Bali's tourism development.*

*The study will employ a literature review and related research to analyze the current state of sustainable tourism development in Bali and the role of cultural heritage in this process. The article will conclude with recommendations for sustainable architectural strategies that can support the conservation of Balinese cultural heritage while promoting sustainable tourism.*

Keywords: *preserving, cultural, heritage, architectural, tourism*

## 1. INTRODUCTION

Bali is one of the best tourist destinations in the world. The island of Bali has various unique things related to social and cultural activities. As a unique island, Bali has an invaluable ancestral heritage. In future developments, community participation and involvement will play a very important role in sustaining the uniqueness of this island. Preserving the cultural heritage of the archipelago, especially Balinese culture as the identity of the Indonesian nation, is a form of appreciation and respect for ancestors. Apart from that, regional culture also holds high historical value, bearing witness to a history of struggles and achievements that should be remembered and passed on to future generations. The existence of culture that continues to be passed down can be a source of knowledge for humans, whether related to culture, human life in the past, or learning other things (Wiriantari et al., 2006). Tourism development can have a positive impact on culture. But on the other hand it also has a negative impact. This happens because of the interaction between local communities and international communities, in this case tourists. Here cultural acculturation will occur, because of this interaction. In addition, regional cultures which are part of Indonesia's national culture will continue to develop (Wijaya, 2004).

It turns out that tourism development also has impacts in the socio-cultural field, such as: changes in demographic structure, changes in types of work, changes in

values, increased attention to the preservation of traditional arts and culture, a decline in artistic values, and changes in daily consumption.

Tourism developments that influence social change are people's behavior becoming consumerist, the emergence of individualistic attitudes, mutual cooperation among members of the community that has changed, the social system has undergone changes, social stratification or social inequality has occurred and the weakening of social values. The positive impacts of tourism development include; (1) expanding employment opportunities; (2) increased business opportunities; (3) increase income; (4) maintaining local culture; (5) familiarity with local culture by tourists.

Based on past cultural developments, especially those related to architectural heritage in the midst of the passage of time and technology that continues to develop, it is necessary to think about further strategies to be able to answer the challenges of technological developments which are feared will erode local culture and even open up the possibility of eliminating national identity. This article aims to explore the preservation of cultural heritage in Bali through sustainable architectural strategies, with a focus on traditional Balinese architecture.

## **2. RESEARCH METODOLOGY**

Data collection methods used in this study include: first, systematic observation and participation. This method is to observe and record cultural events carried out by individuals, families, social organizations, communities and society. Second, structured interview methods and in-depth interviews were used to collect qualitative data regarding the cultural heritage of the past in society. Third, literature study. This method is used to review documents, books, regulations, archives and so on to enrich secondary data. In collecting data, so that interviews can be focused and effective, a set of instruments in the form of an interview guide is used.

## **3. RELATED RESEARCH/LITERATUR REVIEW**

Cultural heritage is a relic that represents a system of values, beliefs, traditions, lifestyles and traces of a culture that are continuously passed down from the past to the present. Bali's cultural heritage is a valuable asset that must be protected and preserved. Architecture is the result of a society's culture, because architectural work is an embodiment of the life of a society in general, and an embodiment of a person's personal self (Aryani & Tanuwidjaja, 2013).

Adjusting the intensity of application of architectural principles, especially traditional Balinese architecture, is an important element in sustainable tourism development in Bali. Flexibility and flexibility in the context of applying traditional architectural concepts and principles are important points in balancing cultural heritage preservation and tourism in the context of modern tourism.

The existence of various adjustments to regional regulations, especially Bali provincial regulations number 5 of 2005, provides opportunities for buildings with various specific functions to be able to apply traditional Balinese architecture rules within limits that are adjusted to functional needs, location and their impact on the environment. This provides an opportunity for non-traditional building construction to continue to exist in Bali without rigid restrictions. However, it is important to ensure that adjustments to the intensity of application of traditional architectural principles are wise and in accordance with the goals of cultural preservation. An in-depth study of implementation is needed that adopts a balanced approach between preserving cultural heritage and sustainable development. Collaboration with architecture, community leaders, and other stakeholders can help ensure that any important adjustments take into account cultural and environmental values (Widiastuti et al., 2017).

The use of traditional architectural styles and characters is an important element in maintaining the island's cultural identity. These styles and characters reflect the beauty and richness of Bali's cultural heritage which has been inherited from generation to generation. Bali Regional Beautification Regulation number 5 of 2005 is used as the main guideline to ensure that stone buildings in Bali retain their traditional architectural characteristics. The use of local materials such as straw building coverings, brick and bamboo wall coverings not only respects cultural heritage architecture but also makes every effort to implement the principles of sustainability.

The use of local materials is believed to be an effort to help reduce carbon and utilize natural air circulation and integration with the natural environment to support environmentally friendly development.

Strengthening local Balinese cultural identity is an important element in maintaining traditional Balinese architecture. Traditional Balinese architecture not only reflects visual beauty but is also an expression of local wisdom, cultural values and rich history. More than that, strengthening Balinese cultural identity through traditional architecture is a form of cultural preservation. By maintaining the existence and integrity of traditional architecture, Bali not only maintains the heritage of the past, but also passes it on to future generations. This ensures that Balinese cultural values will live and develop in the future. However, it is important to remember that strengthening Balinese cultural identity through traditional architecture must be balanced with environmental sustainability. Several things that need to be considered when implementing traditional and environmentally friendly architecture-based development include (Wiriantari, 2020):

- a. Use of local building materials
- b. Utilization of natural circulation
- c. Integration with the natural environment

#### **4. RESULTS AND DISCUSSION**

Sustainable architecture is the use of design strategies that reduce the negative environmental impacts of the built environment. Architects consider site landscaping, energy management, and stormwater management when planning, and then use environmentally friendly building systems and materials during construction. Sustainable design is no longer just trend of the future—it is essential today and will benefit the communities where it is implemented. When designing public buildings with sustainability in mind, architects use the following five sustainable architecture strategies:

- a. **Passive Sustainable Design.** Passive strategies, such as considering solar orientation and climate when selecting a location and considering the placement and operation of windows, are used to properly manage natural lighting and natural ventilation and greatly help in reducing energy requirements for buildings. In certain climates, thermal mass techniques can be used to harness solar energy. In such cases, thick walls absorb solar heat during the day and release it into the building at night.
- b. **Passive Sustainable Design.** Passive strategies, considering solar orientation and climate when selecting location and considering the placement and operation of windows, are used to properly manage natural lighting and natural ventilation and greatly help in reducing energy requirements for buildings. In certain climates, thermal mass techniques can be used to harness solar energy. In such cases, thick walls absorb solar heat during the day and release it into the building at night
- c. **Sustainable Active Design,** designed to have little environmental impact.
- d. **Renewable Energy System.** Renewable energy systems, including those utilizing solar and wind energy, are also good options for some

- buildings. This system is often used in conjunction with passive design strategies.
- e. Environmentally Friendly Building Materials and Finishes. By prioritizing purchasing steel, wood, concrete, and finishing materials, such as carpeting and furniture, from companies that use environmentally responsible manufacturing techniques or recycled materials, architects are increasing their commitment to sustainability.
  - f. Native Landscape. The choice of landscape can have a major impact on the water consumption of civil buildings. By using trees, plants and grasses native to the area, the architects were able to significantly reduce irrigation requirements. Landscaping can also be used as part of passive energy strategy. By planting trees to shade roofs and windows during the hottest times of the day, solar heat gain inside buildings can be reduced.
  - g. Rainwater Management. When rain falls on untouched locations, the water that does not evaporate is absorbed back into the soil, thereby replenishing the natural water table. By implementing stormwater management strategies, such as permeable pavement that helps reduce water runoff and retention ponds that capture water runoff and slowly release the water back into the ground, the negative impact of buildings on the environment can be reduced.

#### Challenges of Preserving Local Traditions

Cultural heritage is part of culture, consisting of cultural elements that are classified based on a certain age (more than 50 years), including religious, aesthetic, historical, archaeological, anthropological or other scientific values. Cultural heritage is an asset for a community, ethnicity, nation and even the world (Brata et al., 2020). Cultural heritage has a very broad scope and if classified based on cultural forms it can be classified into:

- a. cultural heritage in the form of tangible objects (tangible cultural heritage), such as historical sites, temples, forts;
- b. cultural heritage that cannot be touched, but is captured by the five senses other than touch, such as: music, literature, art
- c. cultural heritage, which is more abstract than cultural heritage, includes concepts and cultural values (abstract cultural heritage), such as: the concept of tri hita karana, harmony values, balance values, aesthetic values.

There are several factors that become challenges in preserving local traditions. These challenges are:

- a. Globalization exists. One of the biggest challenges is globalization which makes interactions between people faster. Continuous changes occur, including the preservation of architectural culture.
- b. Social Change.
- c. Apart from individualism, the factor that is an obstacle to efforts to preserve traditional culture is the lack of socialization and mediation from the parties responsible for dealing with this problem. Apart from that, the role of society is also very important in teaching the younger generation to have the skills to maintain their ancestral heritage.
- d. Lack of Knowledge,
- e. Resources, and Motivation.

The inhibiting factors in preserving local culture are the environment, humans, progress over time, audience interest and funds or assistance to continue appearing and existing in every activity. Meanwhile, several important principles in preserving regional culture are:

- a. How to Preserve Regional Culture
- b. Get to know and study regional culture.

- c. Foster a sense of love for regional culture.
- d. Cultural overview.
- e. Not easily influenced by foreign cultures.
- f. Utilizing existing technology to introduce regional culture to the international realm.

## 5. CONCLUSION

Preserving cultural heritage is the duty and responsibility of all components of society, because the identity of nation can be seen from the culture of the nation concerned. Through cultural heritage, the current generation can communicate with previous generations through their cultural heritage. Cultural heritage is mandate that must be safeguarded, protected, developed and preserved and utilized for human welfare. The priority for tourism development is human development, especially empowerment of local communities, tourist satisfaction, and preservation of cultural heritage tourism resource. The synergy between the welfare of local communities, tourist satisfaction and the preservation of cultural heritage is fulfilled, which means that sustainable Bali tourism development can be realized. Based on the explanation above, there are several strategies needed to preserve cultural heritage, especially culture in the field of architecture, including:

1. Integration of traditional and design principles
2. Use of environmentally friendly materials and construction techniques
3. Adaptive reuse of historical structures
4. Community involvement and empowerment
5. Balancing conservation with economic development

## REFERENCE

- Aryani, N. P., & Tanuwidjaja, G. (2013). Sustainable Architectural Design in a Tradi-Tional Balinese Housing in Accordance To the Concept of Tri Mandala. *Journal of Architecture&ENVIRONMENT*, 12(2), 113. <https://doi.org/10.12962/j2355262x.v12i2.a561>
- Brata, I. B., Rai, I. B., Rulianto, & Wartha, I. B. N. (2020). Pelestarian Warisan Budaya Dalam Pembangunan Pariwisata Bali yang Berkelanjutan. *Prosiding Seminar Nasional Webinar Nasional Peranan Perempuan/Ibu Dalam Pemberdayaan Remaja Di Masa Pandemi Covid-19*, 49–60. <http://e-journal.unmas.ac.id/index.php/prosidingwebinarwanita/article/view/1241/1053>
- Widiastuti, W., Paturusi, S. A., & Dwijendra, N. K. A. (2017). Cultural Value Transformation in Traditional Market Spatial Planning in City of Denpasar, Gianyar and Klungkung – Bali, Indonesia. *Journal of Sustainable Development*, 10(4), 97. <https://doi.org/10.5539/jsd.v10n4p97>
- Wijaya, N. (2004). Budaya Dan Masyarakat Bali Dalam Perspektif Multikulturalisme. *Jurnal Kajian Budaya*, 3(3).
- Wiriantari, F. (2020). Catuspatha As A Landmark Of Semarapura City In Terms Of Physical And Socio-Cultural Aspects. *International Journal of Engineering and Emerging Technology*, 5(1).
- Wiriantari, F., Sri, A. A. A., & Yulianasari, R. (2006). *CHANGES IN CITY SPATIAL PATTERNS DUE TO URBAN COMMUNITY ACTIVITIES Case Study of Puri Jro Kuta , Denpasar Bali*. 237–243.

